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DOMINIONS ROYAL COMMISSION.

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# ROYAL COMMISSION ON THE NATURAL RESOURCES, TRADE, AND LEGISLA- TION OF CERTAIN PORTIONS OF HIS MAJESTY'S DOMINIONS.

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MINUTES OF EVIDENCE TAKEN IN LONDON IN  
NOVEMBER 1913,

AND

PAPERS LAID BEFORE THE COMMISSION.

(Previous Minutes of Evidence are printed as follows: London, 1912 [Cd. 6516] (Migration), [Cd. 6517] (Natural Resources, &c.); New Zealand [Cd. 7170]; Australia, [Cd. 7171] and [Cd. 7172], and the First and Second Interim Reports are printed as [Cd. 6515] and [Cd. 7210].)

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Presented to both Houses of Parliament by Command of His Majesty.  
*January 1914.*

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PRELIMINARY NOTE.

The Commissioners present at the evidence taken in the United Kingdom in November 1913 were :—

- |  |    |                                  |
|--|----|----------------------------------|
| Sir EDGAR VINCENT, K.C.M.G. ( <i>Chairman</i> ), | }  | representing the United Kingdom. |
| Sir ALFRED BATEMAN, K.C.M.G.,                    |    |                                  |
| Sir HENRY RIDER HAGGARD,                         |    |                                  |
| TOM GARNETT, Esq.,                               |    |                                  |
| WILLIAM LORIMER, Esq., LL.D.,                    |    |                                  |
| JOSEPH TATLOW, Esq.,                             | }  | representing Australia.          |
| DONALD CAMPBELL, Esq., LL.B.,                    |    |                                  |
| The Hon. EDGAR RENNIE BOWRING,                   | ,, | Newfoundland.                    |

The evidence contained in this volume is, in the main, supplementary to that heard by the Commission during their tour in Australasia in the first part of 1913.

Opportunity has been taken to publish certain Memoranda laid before the Commission, and also correspondence on various subjects connected with their inquiry.

The evidence, memoranda, and correspondence have been classified in accordance with the method adopted for the Australasian evidence (*see* [Cd. 7170], [Cd. 7171], and [Cd. 7172]).



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## MINUTES OF EVIDENCE

TAKEN BEFORE THE

## DOMINIONS ROYAL COMMISSION

AT SCOTLAND HOUSE, VICTORIA EMBANKMENT,  
LONDON.

### I.—MIGRATION.

Thursday, 13th November 1913.

Captain J. B. PARK, Principal Emigration Officer for the London District, called and examined.

1. (*Chairman.*) You are Principal Emigration Officer for the London district?—Yes.

2. Would you read the replies which you have been kind enough to furnish to the questions asked by the Commission?—Yes, I will be very pleased. I will read the questions first. The first question you ask me is:—

*Can any information be given as to the numbers and position of the persons who receive licences as passage brokers. Are they usually steamship companies, or firms connected with and employed by them, or private individuals?*

My answer is:—

The number of licensed passage brokers is 126.

Licences are granted to individuals only and not to firms or companies. Licensed passage brokers may be divided into two classes, namely, (a) men who are the owners of ships, or directly connected with the management of ships, e.g., the General Manager or Secretary of a steamship company; (b) men who are not personally interested in any ships, but take out a broker's licence and have agencies for the sale of passages.

Founded upon that reply you again ask me: "Can you give us approximate figures as to the number of passage brokers, who fall under class (a) and class (b) respectively?" In reply to that: No, I regret I am unable to give figures relative to each class of passage-broker.

The next question was:—

*In practice is any control exercised over the grant or renewal of licences to passage brokers either by objection to the sureties offered, or otherwise?*

My reply to that is:—

A banker's reference is obtained for each and every individual surety, and provided this reference is satisfactory he is accepted. In the event of the reference being unsatisfactory or refused then the emigration officer, under the power vested in him by section 342, Merchant Shipping Act, 1894, would not approve of the surety. Where a guarantee society is the surety, that society must be one which has been approved by the Treasury for the purpose of guaranteeing passage brokers. As regards the broker himself, if he was considered to be an unsuitable person to hold a licence, then the Board of Trade would oppose his application to the licensing authority.

Founded upon that, you ask: "Are those who fall under class (b) mainly heads or secretaries of emigration societies or tourist agents, or, if not, what is their interest in the work? Have they any connection with steamship companies?" My reply to that is: The brokers in this class are generally shipping agents or tourist agents, while a few are connected with emigration societies.

The next question you asked me was:—

*Does the counter-signature of the appointments of agents by emigration officers involve, in practice, any control over these appointments?*

My answer to that is:—

When an appointment is submitted for an agent who is considered by the emigration officer unfit to

hold such an appointment, counter-signature would be refused. The emigration officer has, however, no power to withdraw an appointment once it has been issued, except through the broker who gave the appointment.

Founded on that answer you ask me: "Are, say, clerks in shipping offices appointed as passage-brokers' agents?" My answer to that is: If they are in any way concerned in the sale of steerage passages they are required to be appointed.

3. That is, to be appointed by whom?—By the broker. The next question you asked was:—

*Can figures be given as to the number of authorised agents now existing?*

My answer to that is:—

I regret I am unable to furnish authoritative figures as to the number of agents, although four to five thousand would be about the number holding appointments. The number of appointments which have been countersigned, and are at present valid, is approximately twelve thousand.

4. What is the difference between your four to five thousand and twelve thousand? Do you mean to say there are six thousand or seven thousand licensed who are not exercising?—No, I mean one man may hold 10 appointments.

5. (*Sir Rider Haggard.*) Why does he hold 10 appointments?—Because he is appointed by 10 different brokers, and each broker must give an appointment. If a man wants to sell a ticket to go to Canada he may get an appointment from the Allan Line. If he also wants to sell a ticket to go to Australia he might get an appointment from the Orient Line.

6. (*Chairman.*) Will you go on with the next question?—The next question is:—

*Is it usual for the same man (a) to hold appointments from several passage brokers, (b) to devote their whole time to the business of passage agent?*

My answer is:—

Many agents are appointed by several of the principal lines, and I think the greater number hold appointments from more than one. It would be difficult to calculate the number of whole-time agents in the United Kingdom, but there must be a fair number whose sole occupation is that of selling passages. Scattered throughout the country towns and districts there are many agents who carry on this business as a side line.

Founded upon that answer you asked me: "Does the acceptance of the banker's reference imply that no inquiry of any sort or kind is made into the general suitability of an applicant to become a passage broker?" My reply to that would be: Inquiry is not usually made, although personally I have always tried to interview the man as soon as he has given notice of his intention to apply for a licence; that is if he is in or near London.

7. That is to say, you exercise some sort of control over the passage broker, but not over any agent he may appoint?—I exercise it over the broker when I can see him and get at him or he is near me, but I

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Captain J. B. PARK.

[Migration.]

would not think of asking a man that was to become a broker in a town like Leicester to come to London purposely to see me; and some of the brokers I have never seen.

8. If he is at Leicester or York practically you do not see him?—No.

9. And even if he is here, although you see him you do not see his agents?—No.

10. Those he appoints upon his own responsibility?—Yes, the agents would generally be in some town other than the one where the broker was. They may, and many do, appoint agents in the wilds of Ireland. The London broker does that.

Founded upon my reply to that, you ask me: "Would you explain shortly to the Commission who the licensing authorities are?" The licensing authorities are laid down in the Act itself, section 343 of the Merchant Shipping Act, 1894. "Application for a licence to act as passage broker shall be made to the licensing authority for the place in which the applicant has his place of business." (2) The licensing authority, upon the applicant proving to their satisfaction that he (a) has entered into and deposited one part of such bond as is required by this Act; and (b) has given to the Board of Trade at least 14 days' clear notice of his intention to apply for a licence, may grant the licence, and shall forthwith send to the Board of Trade notice of such grant. (3) The licensing authority shall be—(a) in the Administrative County of London the Justices of the Peace at Petty Sessions; (b) elsewhere in England, the Council of a County Borough or County District; (c) in Scotland, the Sheriff; and (d) in Ireland the Justices in Petty Sessions."

11. Now, I should like to ask you what are the precise responsibilities and what are the privileges of these licensed passage brokers and their agents?—The broker, assuming he is the one connected with the shipping company, for example, the manager of a shipping company, cannot legally sell a steerage ticket unless he is a licensed broker. He must become one, and to conduct his business—say for a firm like the Union-Castle Company—he wants to have agents in all the different towns to get hold of passengers and sell tickets; he must appoint agents, and having a broker's licence he appoints agents in accordance with the Act. These appointments in London are all sent in to me for countersignature, but, as I have said, the agent may be in the wilds of Ireland or anywhere else, and I must judge by what the broker writes on the face of the appointment whether I think the man a suitable man from his vocation. For instance, I had one sent in this morning where a certain variety agent company in a part of London wanted permission to become an appointed agent to sell tickets for steerage passengers to go out to the Cape. I do not myself think it is a very suitable combination, a variety agent (theatrical people) having a steerage passenger agent's appointment; and I pointed out to the writer the Act, and I also advised him, that there might be reasons to object to the combination of two such businesses. Again, I have cases where I have a publican in a little public-house. I do not think that would be a suitable place to have an agency, and I have declined to countersign such an appointment. Even in some cases there are barbers' shops and other places of that kind. I would refuse places of that kind entirely in London, but I might be inclined, if it were in a little country village, to accept a man who kept a grocer's store provided it were a small place and I was given clearly to understand something about it.

12. The reason for disallowance by you usually is the man's previous vocation?—Yes, because I do not see the man; I rely on the broker, who signs that appointment and sends it to me, that he is appointing a respectable man, but in many instances I have had to refuse both brokers and agents.

13. No inquiry is made as to the individual's character?—No, none. With the number of agents I could not do it. Not only that, I rely on the broker, whose bond we hold, for the carrying out of his business and assume that he appoints a proper agent.

14. These 4,000 or 5,000 agents of the brokers have practically the monopoly of the sale of steerage passages: is that so?—Yes.

15. What are their responsibilities?—I do not know that they have any responsibility except that they issue a contract ticket to the person whose money they take.

16. There is no control over any statement they may make in order to induce a person to buy a ticket?—The Act does have a section in it to the effect that if I have any reason to consider that there is any fraud, or that he has induced emigrants to buy tickets in a fraudulent way, I can proceed against that agent, but I must have someone to come forward on whose word I can found or advise prosecution. Six weeks ago, in London, we had a prosecution of a man for taking money from intending emigrants, and I inquired about that man; he had an office in the City and another office in the West End, and acted under two false names, and he got money out of a good number of intending emigrants by a false advertisement. I did not interfere in the Mansion House trial in that case, because the man got a heavier sentence than he could have got if I had; the man got 12 months' hard labour for fraud.

17. The fraud in that case was taking money and giving no passage ticket?—Or false pretences; it was by fraud. The police prosecuted in that case, but if it had been under this Act I should have contended then that he took the money and gave no ticket.

18. What was the precise nature of the fraud? Was it a misdescription of the place to which the emigrant wished to go, or was it obtaining money and giving the emigrant no ticket in return?—He advertised for a manager of works in New Zealand and he had nothing to do with New Zealand whatever, nor was he a passage agent in any way whatever. He offered to give them 300% a year and half their passage out; he advised them to apply to another office; he himself was the other man and the tenant of the other office also. The money was forwarded to the other man; he received the money at one office and wrote the letters referring to it at the other, so that it was a downright swindle. The police accepted it at once in the City, and when I came to the West End office I found the police had arrested him in the East End office.

19. Apart from that it is clearly desirable that intending emigrants should have correct and true information of the suitability of the place to which they intend to transport themselves?—That is quite true, but I do not think you can expect these agents to know very much about these different countries; for instance, in these little country places where those agents are appointed the agent is some little local man who probably knows the people who come to him to ask particulars. Unless there is some distinct fraud I consider the agent will give what information he can. I assume the emigrant knows something about the place he is going to just as well as the agent.

20. The agent's interest is, of course, to sell the tickets?—Yes, exactly, and my place is to see that that agent does not fraudulently sell those tickets, and that the contract ticket is carried out. Another view of the case might be that the agent might be an agent for Australia or Canada or both places. In the one case he would get a handsome commission if a passenger were going to Australia, especially if he were going "assisted" or "aided" under some of the Agents-General; he would then pocket over the transaction of sending the man to Australia about five times as much as if he sent him to Canada. He would naturally be inclined to think the man was a splendid man for Australia whatever he thought about Canada, although probably he would be an agent for both.

21. Over that kind of misrepresentation you do not pretend to exercise any control?—No.

22. And no control is exercised under the Act?—No; in fact I do not require an agent to be possessed of knowledge to give the information.

23. What is your opinion of the system as it is now: do you think it satisfactory?—Yes.

24. Or that it is improvable?—I think it is very satisfactory to keep hold of the broker, the man who knows the ship or who is connected with the ship, and

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Captain J. B. PARK.

[Migration.]

let him be responsible for the man he appoints as his agent. These big companies like the Orient Line, the Union-Castle Line, the Shaw, Savill Line, and the New Zealand Shipping Company have a travelling individual in their firm who goes round, and it is his constant duty to look up these agents, and any agent who is not getting them any business or whom they have any reason to suspect, is called upon by these travelling representatives of the companies, who either remove him from their list or take their agency away from him or do whatever is necessary.

25. However, their action is rather in the direction of stimulus than of check?—Yes.

26. And they would not commercially blame a man for too highly coloured descriptions of the places to which their ships run?—No, in fact I rather think they send people about the country to lecture with lantern views, and everything else, and each Agent-General tries his best to get as many as he can. That is my view of it.

27. In your experience, are there many cases in which emigrants are induced to take passages to places on misdescription?—Not many; a few, I think, have been to Canada, but I do not think I have heard of others. A few have been induced to go to Canada when there was little work at the places perhaps for the individual man, but I found on making inquiries that trade unions entered a good deal into it in the western towns, and that a trade union which wanted to raise the wages and to get people to leave the place raised difficulties. There was a shortage of labour in one town. Then some brokers and agents were asked to send over emigrants; emigrants have gone there and found by the time they got there that the trade was quite flooded, but it was due to some local trade union work that went on. Two or three times I have found that to be the case.

28. (*Mr. Tallow.*) Is it not the case that the Canadian Government give a bonus of £1. per emigrant to the agent in addition to the commission he gets from the steamship company?—I am not quite sure, but I should not think so.

29. I was told that by the agent of the Canadian Government at Dublin; they do it apparently in Ireland.—They may do it for a short season, but I have not known that such a thing goes on.

30. He did not limit it at all; it was the Canadian Government agent in Dublin who told me.—He would know a great deal better than I; that part of it does not concern me, but I know certain of the Australian States do give men £1. a head for every one they can rake in or get hold of.

31. You said that when the names of agents were submitted to you for their appointments to be countersigned, in the case of publicans you would hesitate about giving the counter-signature?—Yes, if I knew him to have some small public-house I would hesitate to countersign the appointment.

32. Perhaps they do not work as strictly in Ireland, but I am told in that country the greater number of the agents are publicans?—Perhaps I may explain that, as the principal emigration officer in London, I have to do with the London brokers, such as the Orient Line broker. The Cunard Line broker is a Liverpool man, and they have to do with another officer of the Board of Trade, who is also an emigration officer. But I have a clerk, and if anyone comes along with at all a questionable vocation, apparent on the face of his appointment, my clerk immediately stops it and keeps it back for my judgment. Then I write to the people and ask them. I either ask the broker to come and see me or I write to him: "Are you aware of this man's business?" and then he will explain. Sometimes it is a woman who is the agent.

33. I suppose there is no limit to the number of agents who can be appointed by brokers?—None; some of the brokers in London have over 2,000 agents.

34. And your chief reliance is upon the broker being a good business man, and selecting only good agents?—Yes. The broker of a company of good standing would be very cautious as to whom he appointed as his agent.

35. (*Mr. Lorimer.*) Just one or two questions: what is the nature of the offences which involve the forfeiture of a broker's guarantee?—We would come upon the broker for the non-fulfilment of the contract on the ticket. In one case a man took out a broker's licence in London; he was guaranteed by one of the guarantee societies. That man went to Newcastle and opened an office as a passage broker, and he sold a considerable number of passages. These individuals were all to embark upon a certain day on a certain ship in London. When the passengers came to London there was no ship, and the broker was missing. They appealed to the emigration officer, who went and booked the whole lot on the first ship for America, and they were forwarded at the expense of the guarantee society who guaranteed the broker; it cost them I believe over 800*l*.

36. The principal offence, you might say, is misleading the emigrants?—Yes.

37. Does action of that character on the part of an agent involve the broker also?—Yes; the broker's bond is behind every agent whom he has appointed.

38. Does the forfeiture of the bond involve the forfeiture of his licence?—It certainly would; we would oppose the re-granting of the licence after he had forfeited his bond.

39. What authority is it that grants these licences?—The Justices of the Peace in the different towns.

40. Is there any appeal from them?—No, not that I know of.

41. Their decision is final?—Final.

42. But you are careful whenever a forfeiture for misconduct has been reported, to oppose the renewal of the licence of the man who has been guilty?—It has only happened once, and on that occasion the bond was forfeited, and the man never appeared again for another licence.

43. That is the only occasion on which it ever happened?—No; on another occasion I appeared at the Guildhall to oppose the re-granting of another London broker's licence, and the justices there refused to grant the licence for a certain time.

44. As a rule, the men who apply for licences as brokers are men of good standing?—Oh, yes.

45. And therefore they will be equally careful to appoint trustworthy agents, because of the responsibility involved?—Yes, especially in connection with the large lines to the Dominions. I have also got to do with brokers who do not deal with Britishers, but who deal with foreigners, and when I come down to the foreign Russian Jew, then, perhaps, I have to do with people who are not quite so sound, and who are not so careful.

46. Are these brokers appointed in this country?—Yes, and resident in this country.

47. And, of course, you exact from them the same guarantee as you do from the others?—Yes.

48. In that case, has it been forfeited more frequently than in the case of brokers dealing with home emigrants?—In the two cases that have arisen the one broker was an American, and in the other case the broker was a woman, a Russian.

49. And she disappointed you?—Well, she did not; the justices declined to renew her licence for a certain time; I think three months was the time for which they refused to grant her licence.

50. Did you say suspended rather than forfeited?—It happened that no action was taken until the renewal of the licence was due—these licences are renewed every twelve months—and it was opposed at the renewal.

51. By you?—Yes.

52. And your opposition was effective?—In that case it was sufficient to suspend, or rather prevent, the renewal for three months.

53. (*Sir Alfred Bateman.*) You say you are Principal Emigration Officer for the London district?—Yes.

54. But you act for more than that, do you not?—No.

55. You spoke about Leicester, I think, just now?—Leicester happens to come within the London district. My district is a pretty large one; it covers from

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Lincolnshire on the one side round the coast of England down to Devonshire on the other.

56. So that it is a good deal more than London and very much more important?—Yes, but I have other duties besides those of the emigration officer, and it is more in connection with those other duties that I have this district.

57. Altogether as regards emigration your duties seem to be simply to look after the agents from this point of view, that they supply what they contract to supply—a ticket?—That is it.

58. So that the people may get to the country they want to go to?—Yes.

59. You take practically no notice of any misrepresentation about the country that they get from the agent?—No, I have no means of doing so, nor can I judge of the fitness of the individual to go to that country; he pays his money and gets his contract ticket, and that contract has to be carried out.

60. Can brokers who are aliens be agents or have they to be naturalised?—I do not think they need be naturalised, I am not quite certain. In the case of my reference to the American I do not know whether he was naturalised. In the case of the Russian, yes, she was naturalised.

61. But you do not know of any cases in which they are aliens?—No, I cannot say that I do. I may say that out of the 126 licensed brokers in the United Kingdom, I think possibly nearly 90 of them are licensed in London; consequently although I only represent the London district the great bulk of the brokers obtain their licences in London or through my office.

62. The question of what the agents receive does not come before you?—No.

63. Whether they get a guinea or two or three guineas?—No, they would get five per cent. on the price of the ticket, I think, as far as the ticket was concerned, and whatever else might be offered by the society or the colony they were going to has nothing to do with me.

64. Would it concern you as to where they do their work, whether in their own houses or public-houses? Where do they get their custom chiefly?—Wherever their office or place of business is.

65. They have to have an office?—I have found a man, for instance, offering to prove he had an office, and I was very doubtful of it, and I made enquiry and went myself and I found out that he rented a chair in an office, and I declined that man's appointment.

66. I want to ask you a question or two about the modern development of Labour Exchanges: are you aware whether there is any connection between the agents and the Labour Exchanges: do they do their work there at all?—I should not think so; I should think they keep as clear of them as possible. I do not know of that sort of thing.

67. You do not know whether they go there, because naturally that would be a good recruiting ground, would it not?—I do not think so because they would not have any money. The agent only wants the man with money.

68. In the same way he would not go to a still newer development, that is the Unemployment Insurance local agent?—I should not think so. It would depend very much on the agent how he goes about his business.

69. The new local Unemployment agent in a big village has the people coming to him for their pay if they are temporarily out of work in certain trades: he gets 2s. 6d. a year for each person on his book. Would not that be a good recruiting ground?—I do not really know.

70. You have not anything to do with these things?—Nothing to do with the Labour Exchanges at all.

71. Or with the way the agents do their business when once they are licensed?—No.

72. You speak, again, of the agents as acting for several routes; but they would not act for competing firms, would they; they would not act for the P and O, and for the Orient lines at the same time, would they?—As far as I am concerned, they might.

73. You do not mind?—Not at all. That is for the companies' brokers, to see that they appoint different men.

74. That you have nothing to do with?—In the Atlantic the lines are what they call conference lines, and then you become mixed up with a different state of conditions.

75. When there is a conference line, it does not very much matter as long as you get clients for one of the lines of the conference?—That is so. Of course, we have brokers—Thomas Cook is a passage broker and all his clerks and all his agents are passage brokers' agents, and they have all appointments. I do not know whether a company would refuse to give an appointment to an agent because that agent had already been appointed by another company; I do not know that, but I should not think so.

76. Complaints about misrepresentation of the country to which they were going would not come to you much?—No; in fact, I never looked on the agent as being an individual capable of giving advice as to the country.

77. But you are aware that he paints everything often in very bright colours?—I am afraid, no matter what information you gave him, he would still be prepared to do so.

78. (Mr. Campbell.) Do you know anything about the appointment of these passage brokers when they come before the Justices for a licence; is it regarded merely as a formal affair?—I think so.

79. Quite formal?—Yes.

80. No serious inquiry is made about the *bona fides* of the individual?—Oh, no, as long as the man complies with the law.

81. And finds the guarantee?—And finds the guarantee.

82. In connection with that guarantee you say there are 12,000 appointments of passage brokers' agents by 126 passage brokers?—Yes.

83. That would be an average of about 100 passage agents to each passage broker?—Yes, although it is not so. It would work out like that if you averaged it, but it is not so.

84. No; but there may be cases, and probably there are, where one passage broker would have perhaps 1,000 appointments?—Yes, 2,000 and 3,000.

85. And those 2,000 or 3,000 passenger agents are all covered by the one individual guarantee that is given by the one passage broker?—That is so.

86. So that in a case like that, of course, the guarantee gets rather attenuated, does it not?—Yes, it does.

87. I do not know whether you have answered the question as to whether you regard the system as one that is likely to have any serious dangers attached to it. Do you?—No.

88. You look upon it ———?—As working perfectly well.

89. Perfectly safe?—Perfectly safe.

90. What check is there; what force is brought to bear to bring these passage agents, whose every interest is rather to misrepresent the position of affairs to an intending emigrant, what force is there that compels them to keep so well within the line that there is no serious damage arising from it?—The broker would withdraw that man's appointment if I were to approach that broker and prove to him that there was reason for doing so, and that might spoil that man's business in that town.

91. In the event of any trouble occurring, if any such case of misrepresentation were known (I do not say it has been because it appears to me there is very little evidence on the subject one way or the other), but suppose a case occurred where there was palpable misrepresentation by the passage broker or his agent, who sets the law in motion; is the responsibility on the emigration officer?—Yes.

92. You are supposed to keep on the watch for those things; you act on complaint?—If complaint is made to me.

93. You act on complaint?—Yes, I would do so, but it is very difficult for me because I must have some evidence of fraud or something more than just bare

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misrepresentation; I must have it that the agent has received the man's money and will not or does not fulfil the contract.

94. This case of which we have been told, that is the case of *Morris v. Howden* (Queen's Bench, 1897), makes it very difficult for you?—Yes.

95. Is there any intention or is there any possibility of rectifying that by regulation?—Not by regulation.

96. Is there any intention of amending the law?—It would be a little difficult to get that amended; we would have to appeal, I think, to the High Court, and probably carry it even further than that to get that decision altered.

97. Is it common for a passage broker or his agent to give to an intending emigrant a receipt for money, practically a contract, for a passage in which no ship's name or date of sailing is specified; is that a common form?—Ever since that decision was given.

98. Perhaps we misunderstood each other; it is not common for a passage agent or a passage broker to give a contract in which the ship's name or her date of sailing is not specified?—Yes, I am afraid it is.

99. So that there are still a very great number of cases to which this case would apply?—Yes. The case does arise.

100. It does arise frequently still?—It does arise, especially with the Atlantic passengers, in the East End of London.

101. Is there any intention to remedy this defect in the law?—No, I do not know that there is.

102. Would it not be possible to compel passage agents or brokers when they are making a contract by regulation or by the control you have over their appointment?—I have not very much control.

103. I am speaking now of passage agents?—No, I cannot do anything but demand the production of a written appointment of an agent. The agent may be in Ireland and the broker in London, and he sends down a hundred appointments for me to go through and countersign—probably 500 appointments.

104. So there is no possible way of compelling agents to make a definite contract which would bring that contract within the ambit of the court?—No, I think not.

105. In case of its coming to your knowledge that a passage agent has done something which, though it may not be within the circle of the law, still is, in your opinion, something that would disqualify him as a passage agent, you have no means of revoking his appointment at all?—I would draw the attention of the broker to it first, and hear what the broker has to say, and I would deal with that agent through the broker unless the fault were grave enough for me to prove fraud against that agent.

106. Do you ever have any cases of that sort where complaints are made against a passage agent, and you take those steps you speak of?—Yes, I have appealed to several brokers.

107. There are several cases?—Yes, I have often sent for the agent, and had the agent in my office, and he has offered to refund every penny between himself and 20 passengers before he went out rather than I should bring him into conflict with his broker. That kind of thing happens chiefly with foreigners. I am largely concerned with foreigners—Jewish Russians, Poles, and Austrians.

108. You mean in the case of foreigners who are intending emigrants?—Yes, and some Jewish agent or co-religionist down in the East End of London who deals with these people. Probably there are not two out of twenty who can speak a word of English, and I have to do the best I can and try to get the emigrant put straight and his ticket carried out.

109. Are there many of those foreign agents operating?—A fair number.

110. (*Sir Rider Haggard.*) I suppose I am right in concluding that the interests of both these brokers, and of the 5,000 or more agents who work underneath them, are purely pecuniary?—I think entirely.

111. And I think you told one of the Commissioners that they would not care to go to Labour Exchanges and so on, because those people were not set up in

funds?—I have to assume that in the country towns they are there to get commission.

112. Is that so?—I presume so, but I have nothing whatever to do with it.

113. Then it is a case of "It is your money we want"?—Yes, unless it is some philanthropic society which is to be the agent.

114. We will leave them out; we will not take in the philanthropic societies. There are certain brokers who employ a huge number of agents scattered throughout this kingdom who are all out to get money from intending emigrants; is that so?—That is their business.

115. And it is a business which they carry on and in which they seem to succeed, do they not?—Some succeed; others do not.

116. You have told us certain rather shocking stories which have come to your notice as to frauds which have been played off upon these emigrants, and would it be perhaps fair to presume that other such incidents have happened which have not come to your notice?—Yes.

117. That is, perhaps, all I need ask about that. You told the Chairman and, I think, another Commissioner, that you considered this state of affairs entirely satisfactory; in view of what you have just said to me, do you still consider the state of affairs entirely satisfactory?—Yes.

118. Upon what ground?—That the person I have reported was not an agent. In the case of the man I had to go against and prosecute at the Mansion House, he was not an agent.

119. You told several stories, and you said other such things might have happened you did not know of. In view of those facts, do you still consider this system an entirely satisfactory system?—I do not see that I can better it much.

120. Of course, we all have difficulties in attaining to the ideal, but as it stands can it be an entirely satisfactory system under which there are 5,000 men, over whom there is practically no control, loose in this kingdom with liberty to misrepresent to any extent they like, in order to obtain money from persons who are willing to leave the country, or who think they wish to leave the country; is that an entirely satisfactory system?—I do not see how I can alter the thing.

121. I will take it in that way; you do not see how you can alter it?—No.

122. Can you give me an answer to the question, is that an entirely satisfactory system as it stands?—I cannot consider it an unsatisfactory system.

123. Why not, the facts being as admitted?—Because I do not look upon the agent as an individual placed there to give information to intending emigrants; I look upon the emigrant as being an individual already possessed of his idea of where he is going to and he goes into that office or shop and buys his ticket as if he went in anywhere else and bought an article.

124. You have truly told us that this is done, not from any virtue, not to help the man, but to get money; under those circumstances is it right that a person who benefits pecuniarily should be in the position of directing the individual applying as to leaving these shores, and as to where he should go when he does leave? I do not think the individual requires that information from that agent any more than if I went into a shop and knowing what I want I buy it and pay for it.

125. You think in point of fact a young woman, for instance, of 17 or 18, or a young person going there, does not require any assistance on such a subject? I do not think she would expect to get it from that agent; that agent would be in probably some village and perhaps know not much more than she would.

126. Taking it on that basis, the agent may be a person of the most supreme ignorance who yet, as is asserted freely, and I think it would seem, not without foundation, does give glowing accounts of certain countries by sending the individuals to which countries he will profit pecuniarily; that is so, is it not? I think he will be supplied with some particulars from



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the broker who appoints him for the information of anyone who wants to emigrate, and I think he would use their advertisements and their information.

127. Without any trimmings from his own imagination?—Possibly he might add to it.

128. Still your answer is that, in view of all you have said, and of all that is admitted, you still consider it is a very satisfactory system?—As long as they are able to get the other side of it and can get information from the nearest post office, I do not see that there is anything very far wrong.

129. That is your answer, but, as a matter of fact, the appointment of these agents and, to a certain extent, of the brokers, is a mere form, is it not; it is only subject in the case of the brokers to a money guarantee?—Yes, a money guarantee.

130. And anybody who can insure with an insurance society, and get a money guarantee, can be appointed a broker?—I have had to intervene on one or two occasions with certain men that I have made inquiry about, and I have been able to exert sufficient influence to prevent them getting a broker's licence.

131. That is in a few cases?—Yes.

132. But there must be many cases where it is a mere form; a person against whom there is, nothing ostensible and who offers the guarantee can have the appointment?—Yes, unless I knew something about him, or had some reason to suppose there was something wrong.

133. And it would be fair to presume that you would not know all the details about him?—Yes.

134. If that is so with the broker, still more so with the agents?—Yes. I look to the broker to be aware of that.

135. Therefore the person whose appointment in the majority of cases is a mere form has the power of the appointment of scores or hundreds of others to carry out the executive part of his business?—Yes; but the broker, you must remember, is connected with the ship, and it is to his interest to conduct his business in a thoroughly proper way.

136. Is it not, in the first place, his interest to find passengers for the ship?—Yes, I suppose it is, but you would not get people in the position of the shipowners of London or Liverpool who would willingly or knowingly appoint agents who would do anything which was illegal.

137. I do not think there is much use my troubling you further; I will put to you one final question. You would not agree with me if I suggested to you that, so far from being entirely satisfactory, the system is about as bad as it can be?—No, I would not agree with that.

138. (Chairman.) The fact is that brokers and their agents are, in your view, in no sense public officers—they are mere tradesmen in passages?—Entirely.

139. They have no obligations to the public?—None whatever; that is my view.

140. Now I would ask you to read the answers you have been good enough to prepare with regard to the accommodation on board emigrant ships?—The first question you ask is about ships' hospitals.

*Hospital Accommodation: Regulation 11 lays down that sufficient space is to be set apart for hospital accommodation, and Regulation 13 defines the minimum space to be provided. In practice is any distinction drawn between the space set apart for hospital accommodation in respect of a short voyage such as that to Canada and long tropical voyages such as those to South Africa and Australasia?*

And my answer is:—

Practically no difference.

Founded upon that answer you ask: "Do you think it advisable to have precisely similar regulations as to hospital accommodation for short voyages of seven or eight days and long tropical voyages? If not, what improvements would you suggest in the regulations for the latter." And my answer is: Possibly a slight increase in the amount of area required, although, of course, where an infectious disease broke out this would not make much difference.

The next question you ask is:—  
*Is such accommodation adequate?*

And my answer is:—

Adequate in the North Atlantic trade, but on some occasions in longer voyages and especially where any infectious disease has broken out, the accommodation has, I understand from the medical officers on some of the ships, been in their opinion insufficient.

Founded upon that answer you ask: "Do medical officers of the emigrant ships make any special report to the Board of Trade as to health on emigrant ships which could serve as a basis for action?"—My reply is: "All cases of infectious disease are entered in the official log book of the ship, also the medical officer signs a form as to the number of cases, but it could hardly form a basis for action."

141. Whom does that log book go to?—It is kept by the Registrar-General of Seamen.

142. Then in the case of infectious disease breaking out on an emigrant ship, does he make no special report?—He would fill in a form that infectious disease had broken out. He would also fill in the date the infectious disease was discovered and what treatment was adopted—for instance, if patients were put in the hospital and when they were declared well, and got out of the hospital again. The form would be signed by the captain of the ship, the doctor, and the chief officer.

143. Do all these reports come eventually to some place of control here—do they come to you?—Not to me, but to the Registrar-General of Seamen; these log books of the ships are all kept there.

144. You are the official in charge of accommodation for steerage passengers, are you not?—Yes.

145. But you do not see reports upon which an opinion could be formed as to whether hospital accommodation has been adequate?—No; of course my officers are in touch with the officers of the ship and could ask them when they noticed there had been infectious diseases and they could make enquiry from the captain of the ship and the doctor. "Were you hard put to it?" or, "What had you to do?"

146. An emigrant ship goes away and a large amount of infectious disease breaks out; unless you happen by accident to ask, you get no notice or information about that?—Yes, I would know that infectious disease had broken out on that ship.

147. In what way?—The doctor of that ship has a form to fill in and that form comes to me, but it would not go into any particulars.

148. Not as to the number of cases or the adequacy or non-adequacy of the segregation wards?—No, it would not mention the adequacy of the hospital accommodation. It would mention certain items; for instance, if the ventilation were defective in the hospitals as fitted, but not as to the area or quantity.

149. Would you go on?—Your next question was:—

*Is any return available showing the frequency of attacks of infectious disease during voyages, and the then adequacy or otherwise of the arrangements made?*

And my answer is:—

On board the last 55 ships cleared from London and which carried 20,392 emigrants there were 169 infectious cases on 22 of the ships and 33 vessels had no cases.

On that you ask me, "Could you tell the Commission whether the cases of infectious disease occurred mainly on ships to Australasia or on those to Canada and the United States of America, or were they evenly distributed?"—My answer is: I should say they were mainly on the Australian voyages.

150. (Mr. Lorimer.) I suppose that is because infectious disease is largely latent for a definite period?—Yes.

151. You might have just as many going to Canada with that disease latent?—Yes.

152. And it would develop after they got there?—Yes.

153. (Chairman.) Will you go on to the next question?—Your next question was:—

*In case of a severe epidemic of measles or other infectious disease on board, are arrangements made for*



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*temporary extension of the hospital arrangements with adequate segregation?*

My answer is :—

No arrangements are made for epidemics, and the master and surgeon must in each case do whatever is possible under the circumstances.

Founded upon that answer you ask: "What can you suggest in the way of better provision against epidemics on long tropical voyages?"—I do not know that I can advise much unless you do not allow the passengers out of the ship, and you do not allow anyone to come into it at ports of call.

154. You might recommend larger segregation quarters?—Even if I did I would have to enlarge very very much before it was of any great good. I myself have been in command of an emigrant ship and had 40 cases of measles at a time and had no difficulty in making the necessary arrangements.

155. Where did you put them—on the upper deck?—Yes, I turned out a room of stewards, and I was able, with the doctor's assistance, to arrange matters entirely to his satisfaction.

156. Might it not be compulsory on board ships to have the possibility of creating segregated accommodation of that kind?—You would require a good deal of extra accommodation to be able to meet a case of that kind; the increase would need to be large to be effective once an epidemic had broken out.

157. Do you really think that these are things you must take the chance of?—I think so; I think it might be possible to make a small increase to the hospital accommodation on the Australian ships over and above what is required for the Atlantic ship, but only a small addition. It would not be satisfactory to meet the infectious disease when it broke out.

158. It might deal with the first few cases and prevent their spreading?—Yes, in that way; that would be all. Both as regards people to look after those who are sick on board the ship and to make arrangements, the captain, as a rule, can do a good deal in most ships, both by employing suitable women to act as nurses from among the hundreds that are perhaps on board, and men, too, by payment and agreement. I have never had any difficulty and I have made many voyages all over the world with emigrants.

159. Will you continue?—Your next question was :—

*Berthing Accommodation: Regulation 8 provides for the berthing of male passengers (other than those who occupy berths with their wives) either in separate rooms or in a compartment divided from the space appropriated to the other steerage passengers by a bulkhead. In practice which of these plans is usually adopted (a) on emigrant ships to Canada, (b) on those to Australasia?*

My answer is :—

(a) and (b) Generally in separate compartments, although in some lines they are in rooms and other passengers in the same compartment.

Founded upon that you ask: "What is the exact difference between a compartment and a room?" My answer to that is: A compartment in a ship would be a space self-contained with its own ladder-way, its own ventilation, with a large number of passengers in it; a room would be a cabin within a compartment which was not a self-contained arrangement with its own ventilation and its own entrance.

160. In your opinion, is the separation now provided adequate?—It depends a great deal on the booking clerks and the booking arrangements with the passengers. The ships are built and come to London from the building yards from different places, with cabins, and it depends considerably on the booking clerks of the different companies to see that the men are berthed as much as possible in one set of rooms, and the women as much as possible in another. That is when the whole of the people on the ship are berthed in separate cabins. Of course, if we deal with them berthed in large steerages where they are in cubicles or entirely open, then the men would all be in one part of the ship in the open steerage, and the women, if in another open steerage, would be in another part divided by a steel bulkhead. In each case each steerage would be a self-contained place, with its own

ladder-ways, its own means of ventilation, and occupied entirely by men in the one case and entirely by women in the other. But when we deal with a ship that is all built in cabins and supposed to give rather superior accommodation, then much depends on the berthing of the people; one voyage we may have 500 men, and the next time there may be 500 women, and we have to try and make the thing fit for both occasions, and it depends a good deal how this berthing is arranged for.

161. That is done by the companies without any superior control; it really depends on the booking clerk?—The booking clerk gives my officers who go down to the ship on sailing day particulars as to where he has put the women and where the men are to be put, and if my officer has any objection to make he would do so; and the Agents-General of the different colonies have generally someone down at the ship representing them; and if one of those gentlemen had any objection to make it would be rectified; they would do what was right in the matter. They would not take and berth four or five women in a cabin immediately in front of a room with four or five men; if there were two adjoining cabins (women on one side and men on the other) instead of having spaces above at the roof and below at the floor for a current of air and ventilation, all that would be closed up. My officers would see that was done. In fact, the shipping companies as a rule do all they can towards meeting us; they know what my officers would require.

162. And in the cases where temporary emigrant accommodation is set up, are the difficulties greater there?—No; as a rule the temporary arrangement would be put up to meet the bookings which they had. They would say: "We have 100 women, and we must build for 100 women in this part; we have 500 men, we must put them down another hold and arrange for them."

163. Will you kindly go on?—The next question is :—

*It has been suggested that the quarters of the single men should be at one end of the ship and those of the single women at the other. Is this system practically possible?*

My answer is :—

Yes. In some ships this arrangement exists.

The next question is :—

*Does it already obtain in many emigrant ships?*

And my answer is :—

Yes. In many.

Founded upon that answer you ask me: "Would you suggest that separation of the quarters of the sexes by placing them at different ends of the ship should be made compulsory on all emigrant ships?" My answer is: No, I would not. Again: "Would it be practicable to provide a separate deck for the single women?" and my answer is: No, in some ships it would be impossible.

The next question is :—

*Or, if not, what arrangements for separation of the sexes are made in practice?*

And my answer is :—

Separate compartments are allotted to each sex, or all may be berthed in small rooms.

The next question is :—

*What improvement is possible?*

And my answer is :—

This would depend very much on each particular ship, but where women are all in rooms and men in rooms it would be well, where possible, to have the women's rooms separated from those of the men by a division or partial bulkhead.

With reference to that I should say that I had in mind where an occasion would arise where you had women directly facing cabins with men. In that case if it were practicable on that particular ship I should then fit up a screened bulkhead running between the two sexes. Of course, by everything you do to introduce screens between rooms on a ship, if she is going down the Red Sea, you hamper the ventilation terribly and increase the trouble amongst the emigrants. The next question is :—

*Are married quarters usually provided?*

And my answer is :—

Yes. In nearly all ships.

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The next question is :—

*Is special accommodation usually reserved for assisted and nominated emigrants, particularly single women emigrants who are going out to the Australian States or New Zealand?*

And my answer is :—

Yes, usually, and particularly if there is a large number of such emigrants.

161. Will you go straight on now?—The next question is :—

*General: Generally speaking, is there a tendency, and, if so, has it been more marked in recent years, to provide (a) better hospital accommodation?*

My answer is :—Yes it has; the hospital accommodation is better than it used to be. And :—

*(b) and more privacy as regards berthing arrangements than the minimum laid down by the Regulations?*

And my answer is :—Yes, especially in the new ships. You then asked me something about matrons : “Can you tell the Commission anything about the appointment of matrons with parties of assisted and nominated emigrants?”

165. Do you consider the arrangements as to matrons satisfactory?—As emigration officer I have nothing to do with the matrons; if a society had a number of single women they might send a matron in charge of them, but I cannot demand that such should be supplied.

166. Then as regards temporary stewards. We have heard complaints of the conduct of these temporary stewards who are working their passage out. Do you know anything of that?—The employment of temporary stewards is a general one, but it rests with the master and officers of the ship to see that these people conduct themselves properly, and they should not be berthed near where the women are berthed.

167. (*Mr. Tallow.*) I suppose the Board of Trade could, under regulation, if they thought fit, require a matron to a certain number of female emigrants?—The Act prescribes what we can require and demand, but there is nothing of that kind.

168. It could not be done?—I think possibly the law admits of such a requirement being made.

169. You think it could be done without any addition to the law?—I think under the Act of 1906, as it stands, possibly the Board of Trade could do such a thing; I am not quite certain, but I think perhaps they could.

170. Only one other question, and that is about the minimum accommodation; the Board of Trade regulations lay down at present what the minimum accommodation shall be?—Yes.

171. I think you admitted that while that was satisfactory for the shorter voyages it was insufficient for the longer ones?—You are now speaking as to the hospital accommodation?

172. Yes; therefore would you agree that the Board of Trade regulations should be altered and should provide for two minima, one for the shorter and one for the longer voyages?—I think the present one might do for the shorter voyages, but where a ship was a very full one I think it might be increased slightly for the longer voyages. Still whatever the increase was it would never be sufficient to meet an epidemic.

173. Still you would consider it desirable to alter the Board of Trade regulation to that extent?—As regards the area required I think it would be an improvement to slightly increase the quantity required on a longer voyage in a full ship. There is no trouble unless the ship is perfectly full.

174. (*Mr. Lockmer.*) In the supplementary questions submitted to you, you were asked: “What can you suggest in the way of better provision against epidemics on long tropical voyages?” That induces me to ask whether emigrants are kept under medical supervision for any time before they sail?—No.

175. None at all?—None at all.

176. And they may come up at any moment with disease latent?—They all come down in the train together, probably 200 in the train.

177. As you said a moment ago, these epidemic diseases mostly break out on long tropical voyages;

I suppose you would admit that medical observation for some time would probably detect all the latent cases?—It possibly might; but if I take a ship going to Australia and I get down to Naples and land 200 or 300 people ashore; if I get down to Port Said and I allow 400 emigrants ashore for the day—all that protection I have taken would probably be nullified.

178. They are allowed ashore at these different places?—All of them.

179. Then the idea I had would be upset by that; my thought was that if they were kept under observation long enough to ensure that before they went on board there was no latent disease it might be useful, but, of course, if they come in contact with people on the way at Port Said and elsewhere, that would be no use?—The cases of small-pox which have arisen in Australia recently were taken by people embarking in Ceylon, Colombo, and these ports on the outward voyages, and carried to Australia; they did not go from England.

180. Do sailing ships carry emigrants?—No; we have no sailing ship carrying emigrants to-day—not one.

181. (*Sir Alfred Bateman.*) Can you tell the Commission whether it is a serious expense to alter the building for proper segregation when it comes to having, say, 400 women on board instead of 200 on the last voyage?—That would depend entirely on the particular ship, and what her arrangements were; it might cost nothing.

182. Might it cost a great deal?—Not very much, I think.

183. It would not affect you; you would not be stopped from recommending the master of the ship to make these alterations so as to secure proper segregation for a large number of women emigrants?—If they berth them in cabins that is all we can demand—women in cabins. If I were talking about that kind of ship, and most ships have those cabins now, it would cost almost nothing.

184. With cabins you mean you would have the sexes interspersed?—The same as the first-class accommodation—cabins all over. I could put half the cabins full of men, or a third or all of them, or on the next voyage I could put the bulk of the women in the cabins and very few men. It would not make any difference in the cost in that case.

185. In what cases would it raise the cost particularly?—It might raise the cost where I had an open steerage for men, an open space which held 150 men, and I had only got 80 men. Then I must make some different arrangements entirely if the bulk are to be women, and put them somewhere else. Look at the different steerages of a ship; there is a large place with one ladder. I cannot introduce a second ladder—I cannot cut holes through. The first-class is all over; I cannot readily cut ventilators through, as the emigrants are generally down below the second or the first class, and it is very difficult to cut through the decks. I have always to be governed by this question of ladder-ways and the arrangements for the ventilation.

186. Do any of these abuses which happen on board ship on long voyages come before you?—Not unless there is some grievous complaint written by a passenger, then I would hear of it.

187. What would you do?—I would send for the captain, and ask him for an explanation when he came back.

188. And if it was not satisfactory?—I would have the owner along and see the owner of the ship.

189. Would you refer it to the Board of Trade?—I would.

190. Through the Registrar-General?—No; direct to the Marine Department.

191. You have never had such a case?—Yes; the probability is that it would go to the Marine Department and they would refer it to me, the reverse way, and then I would send for the captain on the arrival of the ship and have a full detailed account of what took place, and if it were unsatisfactory I should communicate with the owners about the want of management on that ship.

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192. Could you tell the Commission of a recent case of that?—No, I have not had any particular recent case.

193. Do you remember any cases?—I had complaints about the want of management in one ship. There were two or three different illnesses on board. It was said that the doctor was neglectful, and that kind of thing, and that there was want of proper attention by the matron or stewardess. I think the complaint came from Melbourne; in fact, most of the complaints I ever hear of come from Melbourne.

194. Why is that?—I suppose there is some gentleman in Melbourne who is interested in the matter.

195. There are societies to look after the thing; do you have complaints as to the inefficiency of matrons looking after the girls or anything of that sort?—No, I do not hear of that; I have nothing to do with it; a matron is not compulsory and I cannot enter into the question of matrons.

196. It does not come within the four corners of any Act?—No.

197. The Board of Trade could not make regulations about it?—I am not prepared to say whether the law is printed in such a way that the Board's regulations extend that far or not. I think it is possible they could ask for a matron.

198. But you have not had a case?—No.

199. (*Sir Rider Haggard*.) I gather you think, on the whole, things are fairly satisfactory both as regards the segregation and hospital accommodation?—Yes.

200. And that it would be difficult to improve under all the circumstances in either of those particulars?—It might be improved, perhaps, especially if we had a general idea of how many women were going, how many men, and how many married people when the ship was built, but we have not; this is a constant changing quantity—these different numbers of people.

201. You think, under all the circumstances, it would not be easy to improve greatly upon the present arrangements in either case—either segregation or hospital accommodation?—The hospital accommodation might, as I said, be increased a little on the long voyages, and not only that, but in some of the existing ships the hospitals might have been put in better positions perhaps.

202. The Board of Trade has no authority to order that, has it?—It is a little difficult; the Board of Trade officers are, say, in Glasgow, where a ship is built and the officers there are shown the ship and they pass it. After a ship has got one clearance, it is a little difficult for another officer to come along and condemn the arrangement which has been accepted on a former voyage by another of the Board's officers.

203. Then practically there are difficulties about demanding any alterations?—Yes. A London company would, perhaps, bring their plans round to my office, and they would all be gone into, and my officers would recommend about the hospitals and, possibly, alter the plans and get them all straight before the plans went to the building yard. The ships would come round practically as we arranged. But another owner who did not wish us to be consulted would go direct to the builder and say, "You build our ship to pass the Board of Trade." That ship would be built to pass the Board of Trade officer on the spot, in Glasgow, or Belfast, or wherever he might be. The shipbuilders know what has been passed before and what will pass again. Possibly in cases of that kind we might be able to say, "Had you shown us this before we would have suggested some other better arrangement," but the quantity we can demand will be there in every instance, and probably a little more. It is simply a question of the arrangement of the different cabins which are allotted as hospitals, or their position in the ship, and one officer may think a hospital is not as well placed as it might be, and that it would be better somewhere else.

204. It does come to this, that there are difficulties about making alterations, especially when the ship has already passed the Board of Trade?—Yes.

205. You are aware, I suppose, that there are some very sad cases of epidemics on these long voyages; the Chairman and myself saw a poor woman who lost one or two children and had another there dying, and she complained bitterly that there had been no sufficient isolation and that the sick children were playing with the sound ones?—Was not that mismanagement on the ship?

206. I can scarcely answer the question; we only heard her story and that was what she said. You know there are very serious epidemics?—I do not think you can make it any different. If an epidemic breaks out in an emigrant ship it is almost certain to be pretty bad unless it is caught at once.

207. (*Mr. Garnett*.) Do you find, with regard to hospital accommodation and segregation accommodation, that on the part of the shipowners there is an increasing tendency to meet the wishes of the Board of Trade or is the tendency rather to cut the thing down to the lowest minimum?—With all the companies of good standing the tendency is to meet the Board of Trade and to go better than the Board of Trade requirements.

208. Is it a policy which the Board have considered, viz., to screw up everybody to the standard that some of the best companies are setting of their own accord? Is there anything contrary to sound policy in that, that the Board of Trade should try to bring up those who lag behind to the standard of those who are prepared to go further than the present requirements; in other words, to raise the requirements?—Some of them charge less passage money and they could not afford it; it is all very well to talk about a fine ship where they charge 17*l.* 10*s.* for every emigrant who goes out and pays full fare, but where you are taking an Australian man at 12*l.* you cannot afford that kind of thing.

209. It is a money question?—When we begin to talk about improvements, yes.

210. Does your department look upon it from the money point of view?—No.

211. Anyhow, you admit there are some people giving a great deal more than other companies?—Yes.

212. And one might hope, perhaps, to see these requirements made the minimum?—They are charging more for it; for instance, take two companies going to the same place; one would probably charge more than the other, and I should certainly expect to find very much better treatment both as regards berthing and food on the one with the higher fare than I would on the other.

213. It goes without saying that the consequences to people on a long voyage if they are quarantined for a long time are very serious?—Yes.

214. And it must be the cause of a great deal of suffering, inconvenience, and expense to those who are quarantined?—Yes.

215. Therefore it is not too much to hope that means might be found whereby these epidemics might be nipped in the bud; as you have said in your evidence, it is a matter of isolation at the very beginning, having sufficient isolation accommodation, and segregating those who are suffering from the sound ones? If they are detected in time; but it is a very difficult thing with measles among the children.

216. One knows and admits all that. We had several complaints in Australia, not only about the conduct of some of the stewards working their passage out, but their inefficiency; that is to say, instead of their being efficient stewards and able to look after those who were ill, they were very ill themselves and the people who were suffering had to go without attention. Have you had any complaints on those grounds?—Are you talking now of a passenger who is not well, or somebody who is ill in the hospital?

217. I am speaking of the emigrants who go out and suffer from sea-sickness and who should have been attended to by these stewards who were ill themselves; they were stewards working their passage out. Have you ever heard any complaints about insufficiency of

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attendance of that kind?—We cannot demand any stewards.

218. You cannot demand anything?—No.

219. That does not automatically come within your purview at all?—I know of one particular company which, when it chartered a ship, requires the emigrants to wait upon themselves. I can demand one steward and two cooks for, I think, 100 people—two cooks for 300 people. These are the bare regulations: "Where there are on board as many as 100 steerage passengers not statute adults, there must be a sea-

"faring person appointed as a steerage passengers' steward, and another as cook. If there are more than 300 statute adults there must be two cooks. The steward and the cooks must be rated on the ship's articles and be approved by the emigration officer." That is the whole of the instruction I have got to demand any stewards for an emigrant ship.

220. That is all you can ask?—That is all I can demand, and instead of that we find one ship charging a great deal for a passage and dealing with them as if they were second-class passengers.

## II.—OVERSEA COMMUNICATIONS: POST AND TELEGRAPH.

Wednesday, 12th November 1913.

Mr. EDWARD CRABB, C.B., Second Secretary of the General Post Office, called and examined.

221. (*Chairman.*) You are Second Secretary to the Post Office, and you have been good enough to come here to represent that department?—Yes.

222. Perhaps the most convenient course would be if you would kindly read your memorandum which was drawn up in answer to certain questions which we wrote to you?—Yes. Shall I begin with the telegraph part of it?

223. Please begin with the telegraph part of it.

*The following are the questions and the memorandum in reply thereto:—*

### CABLE COMMUNICATIONS.

#### Questions.

(a) Members of the Commission will no doubt desire to ask questions in connection with the General Post Office memorandum of 30th April 1913,\* on the question of a State-owned Atlantic cable, which has been forwarded to the Commission. In particular the following points suggest themselves:—

- (1) When will the landing licences of the Commercial Cable Company's group fall to be renewed?
- (2) Could the Commission be supplied with a copy of the landing licence now applicable to the Western Union group of cables?
- (3) With reference to the statement by Mr. Samuel at the Imperial Conference, 1911 (Cd. 5745, p. 391), that the amount of load which the Pacific cable could supply to a State-owned Atlantic cable would be about 1,000,000 words per year, it might be pointed out that according to the last published report of the Pacific Cable Board (House of Commons Paper 256 of 1913), the international traffic carried by the Pacific cable on an average during the last three years amounted to over 2,000,000 words. Some of this traffic, of course, was to and from Canada and the United States.

(b) On the general question of telegraph rates to and from Australasia the Commission would be glad to have the views of the General Post Office as to the effect in increasing traffic of the recent introduction of deferred and week-end telegrams and as to the possibility and prospects of further reductions in (a) full rate, (b) deferred and week-end, (c) press messages, with particular reference to improvement of the load factor on the cables, which is at present poor.

(c) It has been stated that, as yet, adequate publicity has not been given to the increased facilities afforded by the system of deferred and week-end telegrams, and it has also been suggested that the following changes might usefully be made:—

- (1) that no extra charge should be made to the public for the service communications indicating the nature of these messages;
- (2) that the minimum length of week-end telegrams should be reduced to 12 words, costing 9s.;
- (3) that the charge for week-end telegrams should be reduced to 6d. a word;
- (4) that week-end messages should be transmitted by telegraph throughout;
- (5) that the use of registered addresses should be available for week-end messages, as well as for ordinary and deferred;
- (6) that "dictionary" code words should be allowed in these messages, as distinct on the one hand from plain language, which alone is allowed at present, and on the other from any kind of pronounceable word which is permitted in code telegrams.

The Commission would be glad to hear the views of the General Post Office on these points.

(d) It has also been brought to the notice of the Commission that—

- (1) the percentage of reduction on deferred telegrams to and from the United States of America and Canada is greater than that on those to and from Australasia;
- (2) the Western Union Cable Company has commenced a system of daily cable letters to America; and
- (3) week-end telegrams to Australasia are delivered on Tuesday morning, whereas those to the United States of America and Canada are delivered on Monday morning.

The Commission would be glad to know what view the General Post Office take of the possibility of similar arrangements on the Australasian service.

(e) In connection with the question of substituting the use of the fastest ship on the berth for a large mail subsidy on account of the Australasian mails, it has been suggested that the money saved might be devoted to the improvement of telegraphic communications with Australasia. The Commission would be glad to receive any views the General Post Office may be able to express on this suggestion, and to know whether they could give any approximate estimate of the increase in traffic likely to result from reduction, say, to (a) 1s. 6d. a word, (b) 9d. per word, for full-rate messages, with corresponding reductions for deferred, week-end, and press messages.

#### *Memorandum from General Post Office in reply to the above Questions.*

The Post Office is concerned with cable questions primarily to secure an efficient service at rates reasonable both for the public and for the cable undertaking.

\* See Annexure on p. 12.

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Questions of military expediency, for instance, such as those involved in the provision of cables for strategic reasons, do not come directly within the sphere of the Post Office. It is not proposed, this being so, to offer any remarks either on the views which have been put before the Commission as to the strategic necessity of State cables, or on the merits of the suggestion which has been made that a direct subsidy should be paid so as enable the Pacific cable rates to be reduced below what are justifiable from a business point of view. Those are matters primarily for the consideration of the naval and military authorities and of the Treasury. It may, however, be stated, as a matter of historical fact, that subsidies have not hitherto been given with a view solely to reductions of rate (though such a subsidy is now contemplated in the special case of the West Indies), and that the Colonial Office assured the Eastern Telegraph Company in 1899 that there was "no intention of working the new (*i.e.*, Pacific) cable on other than commercial lines and at remunerative rates" (page 29 of [Cd. 46] of 1900).

It appears that only in the case of the North Atlantic has the provision of a State-owned cable been advocated before the Commission on other than purely strategic grounds. On the commercial aspect of the suggestion for a State-owned Atlantic cable, the Post Office has little to add to the memorandum\* on that subject which the Colonial Office forwarded to the Commission in May last. In that memorandum it was pointed out that in existing circumstances the Pacific cable traffic to and from Australasia would not bring to a State Atlantic cable a revenue of more than 30,000*l.* a year as against an annual estimated cost of 50,000*l.* It was further explained that it could not be expected that the Australasian traffic would be supplemented by an adequate amount of North American traffic, since, on the one hand, the Post Office is bound until 1920 to give to one of the cable companies all telegrams for North America which bear no indication of route, and is further bound not to invite the sender to specify a route, while, on the other hand, there is not in either Canada or the United States any system of inland telegraphs of adequate completeness which is independent of the cable companies.

As regards the telegraph advantage of a State Atlantic cable, it is obvious that reductions of rate are easier to arrange where the whole route is under one control than where the consent of several parties has to be negotiated. The probable amount by which traffic would increase under the stimulus of a given reduction of rate can, however, only be estimated with any degree of confidence, if at all, by those who are familiar with the particular class of traffic involved. The bulk of the extra-European cable traffic does not pass through the hands of the Post Office, and the Post Office is not in a position to offer expert opinion as to the effect of a reduction in the Atlantic rate for Australasian traffic on the revenue derived by a State cable from such traffic. It can only point out that the deficit on a State-owned Atlantic cable would be about 20,000*l.* a year if it carried the present Pacific traffic at the existing rate; and that there is no satisfactory evidence that a reduction in the rate would result in such an expansion of traffic as would increase the net revenue.

As regards efficiency, the existing service provided by the Atlantic cable companies is admittedly a good one. In these circumstances the Post Office is forced to the conclusion that from a commercial point of view the provision of a State cable across the Atlantic is not at present justified.

As regards telegraph rates and facilities in general, the Post Office has lost no opportunity of assisting, where circumstances were favourable, in reduction of rates and improvement of conditions, and, as the Commission is aware, it is taking power to control rates in connection with the renewal of cable landing rights. The landing licence of the Commercial Cable Company expires in June 1915.

A statement† showing the reductions which have been secured within the Empire during the last five

years is annexed. The Commission is, it is thought, aware that there have not in this period been any reductions in the rates for code telegrams to the British Oversea Dominions. The Post Office, while not committing itself to the maintenance of these rates at their existing amounts, must nevertheless point out that the great development in telegraph codes which has taken place in the last ten years has resulted in a material reduction in the cost of telegraphing in code, even though the nominal rate has remained the same. This reduction would not have been possible but for the decision of the London Telegraph Conference of 1903, mainly on the initiative of the British Government, to admit artificial combinations, as distinct from dictionary words, for use as code. This decision, by permitting the use of combination codes, has proved tantamount to a reduction in the code rate by at least 50 per cent.

The incidence of telegraph rates is obviously much less heavy on users of code than on users of plain language; and it was in order to benefit those members of the public who were not in a position to use code that the system of lower rates for plain language telegrams (deferred telegrams and cable letters) was brought into operation. Thus, the essential feature of these services is the use of plain language; and the suggestions that code telegrams should also be admitted at the same rate on condition of submitting to the same deferment disregard the fact that it was only the relatively small proportion of plain language telegrams to code telegrams in the cable service which made the reduction practicable. A considerable proportion of the code traffic might possibly be deferred without detriment to the interests of the sender or addressee; and the introduction of deferred code telegrams might have disastrous financial effects to the cable service. It is not to be inferred, because it is practicable to accept a comparatively small portion of the traffic for transmission at a less busy time at reduced rates, that therefore a large portion of the normal traffic could be similarly accepted.

As regards the proposal to allow code words drawn from dictionaries at the deferred rates as opposed to artificial code words, experience has shown that it is not practicable for counter clerks to distinguish dictionary words from artificial words. The existing codes of dictionary words are based on the vocabularies of several languages in order to obtain as large a selection of words as possible, and, in order to avoid confusion with plain language, the compilers of such codes prefer unusual words and words from the less known languages. To distinguish such words from artificial words requires a linguistic knowledge which counter clerks do not possess. It is certain that a distinction of tariff between dictionary code and other code would cause great friction and prove impracticable.

Suggestions have been made for the further reduction of the deferred and cable letter rates. The general international rule is that the deferred rate shall be half the ordinary rate, and it is probable that extensions of the week-end cable letter system will be on the basis of charging a quarter of the ordinary rate. The standard proportions can therefore at present be regarded as 1, 2, and 4 corresponding to the ordinary, deferred, and cable letter rates. These proportions seem suitable, and as the special services have been in existence for less than two years it is not thought likely that the proportions will be altered generally, at any rate for some time to come. It is true that a further reduction has been arranged in the deferred service with North America. The possibility of introducing a similar reduction for Pacific cable traffic is a question which falls for settlement to the Pacific Cable Board, as does also that of establishing a service of night cable letters to Australasia.

As regards the cable letter service with Australasia, the Pacific Cable Board have agreed in principle to reduce the minimum to 20 words, but they have not yet agreed to the single rate, this matter being still under discussion.

The Post Office is not able to speak as to the possibility of a reduction in the ordinary rate to

\* See Annexure on p. 12.

† Not printed.

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Australasia. The initiative in such reduction lies rather with the Pacific Cable Board, who are in the best position to judge of the effect of the reduction on their revenue, and who must be supposed, in view of their official character, to have adequate regard for the interests of the public.

## ANNEXURE.

*Memorandum by General Post Office.*

The provision of a State-owned cable between the United Kingdom and North America has been advocated on three grounds, namely:—

- (1) Control in case of emergency.
- (2) Prevention of monopoly and of a consequent increase of rates.
- (3) Reduction of rates.

As regards control in case of emergency, all the 13 Transatlantic cables from the United Kingdom are landed in North America on Newfoundland or Canadian territory, and the Imperial Government and the Governments of Newfoundland and Canada enjoy as complete control in case of emergency as if the cables were State-owned.

As regards the prevention of the establishment of a monopoly and a consequent increase of rates, the existing Transatlantic cables fall into two entirely independent groups (the Western Union group with eight cables and the Commercial group with five cables) which maintain a healthy rivalry with each other by competing strongly for traffic, both in this country and in North America. Moreover, a combination to raise rates is practically precluded by the fact that the Postmaster-General has established as a condition of the renewal or transfer of landing licences Government control subject to arbitration, of the rates charged by the Western Union group of cables, and the same principle will be applied to the cables of the other group when its licences fall to be renewed.

As regards the reduction of rates it is assumed that it is contemplated that the proposed State-owned cable would be worked on a commercial basis and that the taxpayer would not be asked to contribute a subsidy in order to cut the rates below what would be justifiable from a business standpoint.

It would not be justifiable, from this point of view, to lay a State-owned Transatlantic cable for the traffic over the Pacific cable to and from Australasia as has from time to time been suggested. As explained by the Postmaster-General at the Imperial Conference in June 1911, the total amount of this traffic is less than one-half the amount now carried on the average by each Atlantic cable and less than one-fifth of what a single cable would be capable of carrying. The estimated receipts at existing rates in respect of the Atlantic transmission of Australasian traffic are not more than 30,000*l.* a year, while the total annual cost of a State-owned Atlantic cable is estimated at not less than 50,000*l.*, leaving an estimated annual deficit of 20,000*l.* Interruptions of cables are more frequent in the Atlantic than in the Pacific, and it would be undesirable to rely upon a single cable. If a second cable were provided the annual deficit would be much larger.

Neither would it be possible under present conditions to supplement the traffic for the Pacific cable with an adequate amount of North American traffic. Apart from the fact that the Post Office is bound under Agreement to hand to the Anglo-American Company until January 1920 all telegrams for North America which bear no indication of route, there is the difficulty that the land telegraphs in the United States, and the greater part, at any rate, of the telegraphs in Canada, are in the hands of private companies, which are closely connected with the cable companies and would hardly be likely to give facilities to the traffic of a competing State-owned cable as against the interests of the cables which they own or with which they are closely allied.

On the other hand the existing cable companies have recently shown themselves responsive to well-considered demands for reductions of tariff. While,

as above stated, the Postmaster-General possesses powers of control which could be used to bring about the reduction of any clearly excessive rates, he would point out that the Transatlantic cable companies, in common with other companies, recently agreed to the system of half-rates for deferred telegrams in plain language and to substantial reductions in the rates for press telegrams exchanged with the British Dominions, and that in the Transatlantic service arrangements have been made for the transmission at greatly reduced rates of day and week-end cable letters.

Apart from these considerations, it is doubtful how far it would be expedient to incur large expenditure upon the provision of a new State-owned cable service at the present time in view of the progress of wireless telegraphy and the promise of a cheaper service which that mode of communication affords.

General Post Office,

London.

30th April 1913.

224. I think there is a further memorandum by the General Post Office, is there not, with regard to the cables between the United Kingdom and North America?—That was sent in some time ago, and I have referred to it here.\* It follows the lines of Mr. Samuel's announcement before the Imperial Conference.

225. The most convenient course for us would be that you should be examined on what you have just read, and deal with the mail matters subsequently?—As you please.

226. What was the origin of the Pacific cable? What was the object with which it was created?—To furnish an alternative route to that supplied by the Eastern Telegraph Company and the allied companies.

227. On account of the high rates then prevailing, or on account of inaccurate or delayed service, or for what reason?—I think it was because the Australasian Colonies felt themselves to be too much at the mercy of one line, on account of the high rates then prevailing, but not on account of any imperfect service given by the company.

228. It was really to meet the desire for lower cable rates?—I think you may say that, yes.

229. Then you say that when the Pacific cable was established a declaration was made that there was no intention of working the new cable—namely, the Pacific cable—on other than commercial lines and at remunerative rates. What did you understand by, or what was understood by, "commercial lines"?—The letter was a letter from the Colonial Office, but I imagine that what they meant when they said that, was that the cable was not to be used simply to cut rates regardless of expense to the taxpayer; that there was to be a definite commercial return on the cable; that it was to pay its way, in point of fact.

230. Does that mean, then, that you were to impose such rates as would give the maximum return independent of the interests of the public?—I doubt if more was meant than that the cable should pay its way.

231. It seems to me rather difficult to reconcile that with the original purpose of the cable, which was to reduce rates?—The rates for the cables coming from the west were reported to be too high. But it has been held by committees, notably by Lord Balfour's Committee, that we are not to use our powers with the cable companies regardless of their financial position, and I take it that there was no intention of establishing what might be called cut-throat competition.

232. But you were to aim at reasonable rates in the interests of the companies and in the interests of the public?—Yes.

233. You say that, as a matter of historical fact, subsidies to cables have not hitherto been given with a view solely to reductions of rate?—Yes.

234. Are there not precedents in the case of the Zanzibar cable on the East Coast of Africa?—In the African service subsidies were given to the Eastern Company to lay cables partly for strategic purposes.

\* Annexure above.



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and we seized the opportunity to combine that with the reduction of rates. Perhaps it would be interesting if I read a part of the Treasury minute which relates to the South African rate: "My Lords have before them a report on certain proposals for a reduction in the cable rates to South Africa which have resulted from the recent negotiations between representatives of the South African Governments and the Eastern and South African Telegraph Company." They go on to recite the proposals: That on the termination in 1899 of the subsidies at present paid to the company by the associated Governments they shall be replaced by a new subsidy of 17,000*l.* payable for 10 years, but the Company shall forthwith make reductions over the whole of the subsidised lines, and they quote them: "During the last five of the above-mentioned ten years the Government shall receive one half of any gross revenue in excess of 180,000*l.*" Then this is the important point: "My Lords desire to record their appreciation of the efforts which have been made by the South African Governments to obtain a reduction in the rates and the liberal spirit in which those efforts have been met by the Company. They would be glad to render such assistance as they can towards the attainment of the object in view. My Lords must, however, point out that it has never been the policy of this country to subsidise telegraph companies in order to secure or compensate them for reduction in the rates charged for ordinary messages. Such a course would involve an imposition on the general tax-payer of a charge which would enable only a limited use to persons who used the cable and could not be justified in their Lordships' opinion. From this position they are not prepared to depart. But as the proposals now before them include a considerable reduction in the rates for messages sent on public service my Lords are willing to make such a contribution towards the required subsidy as would represent the economy which might be expected to result from the reduction, and in making their calculations for this purpose they have taken a somewhat liberal view of the amount of telegraphing which may be expected to be necessary in the future;" and in reporting the matter to the House they say, "My Lords, having regard to the extent of the telegraphic business of the Government with the Eastern and South Africa Companies and to the saving from the reduction of the charges for Government telegrams, consider themselves justified in asking Parliament to ratify the agreements in question." That position, I think, we still hold, although there is the salient exception provided in the last agreement with the West India and Panama.

235. Would you kindly explain the proposed arrangement for a subsidy with the West India and Panama?—That is a subsidy to the company half-and-half between ourselves and Canada and adopted at the instance of the Canadian Government to pay the West India and Panama Company, on condition that they reduced their rates, 16,000*l.* a year, shared equally by the Imperial and Canadian Governments for ten years, plus existing subsidies of 10,300*l.* a year from the West Indies for the same term, and after the first four years one-half of the amount, if any, by which the revenue exceeds the existing revenue (the existing revenue being taken at 74,000*l.*) will be deducted from the subsidy up to the total amount of the subsidy. The chief reductions are: The ordinary rates between the British West Indies, including British Guiana on the one hand and the United Kingdom and the first zone of North America on the other, will be reduced to 2*s.* 6*d.* and 1*s.* 6*d.* a word respectively. The existing rates from the United Kingdom were from 3*s.* 6*d.* to 5*s.* The first zone of North America includes the New England States and New York and the nearest Canadian provinces and Newfoundland. "The rates between the British West Indies, including British Guiana, thus will be reduced by half, with a maximum of 1*s.* 3*d.* a word and a minimum of 1*s.* a message; the press also to be reduced to one half the new ordinary rates, plus a further reduction of 1½*d.* a word for Transatlantic

"transmission made by the Western Union." That is an exception to the ordinary practice, and is a subsidy given directly for the reduction of rates to the West Indies.

236. And is therefore an infraction of the principle?—Is therefore a departure from the policy ordinarily followed.

237. Turning to the question of the Atlantic cable you state that the revenue expected can only be 30,000*l.* a year against an annual estimated cost of 50,000*l.* a year?—Yes.

238. That is entirely Australian traffic outside anything which can be hoped for from Canada or the United States?—Yes.

239. Do you not anticipate any traffic at all from Canadian sources?—No, it is not safe to anticipate any because the land lines in Canada as well as in the United States are in the hands of private companies, the companies which run the cables, and there is no reason to suppose that they would go out of their way to hand over messages to a State-owned cable which was competing with them.

240. Is that a satisfactory state of affairs, that all Canadian traffic should be routed away from the proposed North Atlantic cable?—It is a matter which we, on this side, can scarcely interfere with. There have been proposals again and again renewed, that the United States and Canada respectively should buy up the land lines and start a Government system of telegraphs. They have not come to anything yet so far as I know; and all we can say, looking at it from this side of the Atlantic, is that it is bound to be enormously expensive.

241. What are your powers over the Atlantic Cable Companies?—We control the rates for the Western Union group, and shall control the rates for the Commercial group as soon as the Commercial Company's licence falls in in 1915. We control them by virtue of our power to suspend the landing licence, but that power can only be used to a limited extent. As I have already explained, we were told emphatically—in the last instance by Lord Balfour of Burleigh's Committee—that we were not to use that power regardless of the position of the companies; it was to be used mainly to meet unreasonable proposals from them or unreasonable rates.

242. Can it be used to obtain reductions which you think reasonable?—It can be used very sparingly. It is obvious that it must be used with the greatest discretion.

243. You depend, then, on the competition between the two Atlantic cable groups for any possible reduction of Atlantic rates?—On that and the possible effect of wireless traffic.

244. Are the two Atlantic cable groups in free competition?—Yes, they are in very sharp competition.

245. Do you anticipate any reduction in the Atlantic rates independently of what might be brought about by a State Atlantic cable?—The Postmaster-General, in negotiating with the Western Union Cable Company, distinctly declined to commit himself to any statement that he might not ask for a further reduction in future. Of course we secured reductions from that group a little time ago, and he warned them fairly then that it might be the case that he should ask for further reductions in the future, but there is no proposal to do so at present.

246. Now you say here that the recent decision permitting the use of combination codes has proved tantamount to a reduction in the code rate by at least 50 per cent.?—Yes, that is our estimate.

247. If that is so, your deferred rate, which is half your full rate, and which prohibits code, is practically a very small concession?—It is a concession made to the users of plain language, to the people who are not supposed in the ordinary way to use code.

248. You see great difficulty in allowing dictionary words to be used in these deferred telegrams?—I think it is practically impossible; we have tested it and found it impossible to distinguish dictionary words from words which are not dictionary words. To do so our counterman—the telegraphist—the man who accepts the telegram over the counter of the office—would have to be very closely acquainted with eight

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languages. I remember that when we were trying to enforce the use of dictionary words a man would come in, putting perhaps an Italian prefix to a Latin suffix, and claim that that was a dictionary word. The counter clerk queried it, and the sender would practically throw it upon him to say why it was not a dictionary word, and this it was impossible for him to do; there was constant friction between the public and our counter clerks.

249. Would it not be possible to have your own code which would be allowable for deferred telegrams?—You mean that we should build up a code of our own?

250. Yes.—Composed of—?

251. Dictionary words.—It would be possible to do so, of course; I do not think it would be effective.

252. Do you see any objection to the idea? It might prove a considerable facilitation for the users of deferred telegrams; they could not use their own private codes of composite words, but a specified dictionary would be allowable; it would be an intermediate stage between plain language and code?—Again, I think there would be a difficulty on the part of the counter clerk in deciding whether this code was being used or not—whether the words used were dictionary words. He deals with a telegram handed in to him; he sees some uncouth-looking compound and questions that that is a dictionary word. He has not necessarily got the code which we have built up; it would be a very expensive business to supply it to every office. The man handing it in says, "This is a dictionary word," whereas it is not as a matter of fact. Look at the words used in a dictionary code now. Some of the compounds (I do not know all the eight languages) are to me unrecognisable as words.

253. Surely that difficulty could be got over by giving your counter clerk copies of your code?—It would be very expensive; there are a good many offices in England. Your code would be a large one to be of service.

254. Then this Commission sent home from Australia certain proposals for the facilitation and the extension of the use of deferred and week-end telegrams. I should like you to give us one by one the views of the Post Office upon those proposals. I will read them out for your information. We suggest "that the minimum length of week-end telegrams" (of 24 words) "should be reduced to 12 words, costing 9 shillings"—I feel some doubt as to whether I am the proper witness, with submission, to be asked this particular question. We are in correspondence with the Cable Board, and the Cable Board have in effect agreed to a minimum of 20 words, but we do not control them, and while we are quite willing that this should be carried into effect, or part of it at least—it is for them to say, really.

255. Quite, but speaking solely from the Post Office point of view, do you see any objections to the proposals which we made?—The Post Office would not object to a reduction of rate if that can be effected. What it is particularly anxious for at present in the week-end cable message is the introduction of the single rate; that is to say, that you should be able to charge a rate here when the message is handed in that will cover telegraphic transmission to the destination and, if necessary, telegraphic transmission to the cable at this end. Of course a message is transmitted over the cable by telegraph, but at either end it can be sent by post—either or both; and we find that that causes an infinity of trouble in our office. The sender finds a difficulty in understanding the regulations, and our counter clerks find a difficulty in ascertaining what it is he wants.

256. That was one of our further recommendations which I understand the Post Office is strongly in favour of?—Yes, very strongly in favour of it.

257. Our second proposal was that "dictionary" code words might be permitted in deferred telegrams; that you have already dealt with?—Yes.

258. We are further informed that a further "reduction of six pence per word in week-end messages" would lead to a large extension of weekly telegraphic "market reports and to some replacement of post by

"cable." Can you give any opinion upon that?—That is, the charge for week-end telegrams to be reduced to 6d.?

259. Yes, from 9d.—The rate of 9d. was fixed by the Pacific Cable Board, and it seems suitable having regard to the existing ordinary and deferred rates, but it is a matter really for the Pacific Cable Board to consider rather than for us.

260. As far as the Post Office is concerned, I take it you have no objection?—We have no rooted objection.

261. Can you give us any general view as to the effect of reductions of rate on the development of traffic in these long cable routes?—I do not think we can give much that is useful; the cable companies themselves, I think, are the only people who could give you information that would be worth much. I have some figures here of rather old date, but I do not wish to place very much weight on them. In May 1886 the rate to New York was reduced from 1s. 8d. to 6d., as a cutting rate in the competition between the Atlantic cable companies. The reduced rate was in operation two years, and according to statements made to us then by the Anglo-American Telegraph Company the reduction resulted in an increased traffic of 140 per cent. The financial effect was very unsatisfactory, and the rate was ultimately increased to 1s. The volume of traffic remained about the same. It was afterwards stated to us that when the traffic had settled down to the new rate it was about 20 per cent. less than the traffic at the 6d. rate. Then to India in 1902 the rate was reduced from 4s. to 2s. 6d. The increase of traffic was said to have amounted to about 26·5 per cent. It was part of the arrangement between the Indian Government and the cable companies, that when the gross revenue at 2s. 6d. equalled the revenue at 4s. the rate should be further reduced to 2s. The reduction was made in 1905, and Mr. Austen Chamberlain, then Chancellor of the Exchequer, said he did not think the great increase of traffic which had ensued had been caused by the reduction in the rates. He attributed it to other causes. I have some further figures with regard to the South African rates which may be of interest. The rates to South Africa were reduced in 1899 to 4s., in 1901 to 3s. 6d., in 1902 to 3s., and in 1903 to 2s. 6d. a word. The results, I think, show how difficult it is to assess the effect of the reduction of rate by itself on traffic. Of course, there were disturbing factors here in the form of the war and other matters, but the net result is that in 1911 the Company was earning at a 2s. 6d. rate almost exactly the same gross revenue as in 1898 at the 5s. rate; in other words, it was doing twice the amount of work for the same money. I only quote these figures to show how extremely difficult it is for us, at least in the Post Office, to form any judgment. There are disturbing factors here in the form of depression of trade and the war which make them valueless.

262. I understand, in Australia and New Zealand, the reductions in telegraph rates which have been made there have resulted in very large increases of traffic and the utilisation of facilities by the public?—The increases of late have been mainly in the direction of the deferred telegram and the cable letter work through the Pacific cable.

263. What is your view as to the success of those two experiments?—Of the deferred telegram and the cable letter?

264. Yes.—It must be admitted that they meet a great want. There must be people who, while wishing to send intelligence to their friends quicker than can be done by the post, do not mind 24 or 48 hours' deferment, and to those people I imagine that the cable letter and the deferred telegram must prove a great boon.

265. Has the growth of that traffic been satisfactory?—Yes.

266. Although, as it was stated to us, in Australia the public are very imperfectly acquainted with the facilities now offered?—If it is meant that the public in England are imperfectly acquainted, the statement



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seems scarcely justified. We did all we could to acquaint the public; we advertised it; full particulars were given in the Post Office Guide, which can be consulted free of charge at any post office; and we placarded the post offices with it; and our counter clerks would know, if any person comes in and wishes to send a telegram to Australasia, and is in doubt what to do, and asks for information, that these facilities should be brought to his notice. I do not see that we can easily do more.

267. I do not know the statement was made that it was imperfectly known in England, but imperfectly known in Australia?—It may be there; I cannot tell; but in England I think we have done all we can do.

268. You have given the fullest publicity to the facilities offered?—Yes, quite as full publicity as we do to any other improvement.

269. (*Sir Alfred Bateman.*) As regards that publicity, I think in Australia, so far from publicity having been given, we were told at one or two places that the counter clerks did not know of these facilities; you think that could never be the case here?—I think it would be an irregularity if it were the case here; if the counter clerk said he did not know of these facilities, we should want to know why that counter clerk was not properly acquainted with his duty.

270. You think that would be impossible here?—Nothing is impossible, because people are forgetful and foolish, but it ought to be impossible.

271. You quoted the case of South Africa and the reductions there at the cost of doing double work for the same money; did it cost you more?—It did cost the company more.

272. In increasing the load, the number of messages up to a certain point, does that cost more?—You have got so much less per word. The old rate was 5s. a word, and the new rate 2s. 6d. a word, and you did twice the amount of business.

273. You have double the number of words; does that necessarily cost more?—Certainly, you are using your cable more; you are using your staff more if you increase the traffic, and if you increase the traffic beyond a certain point, supposing you have a cable loaded nearly up to its full capacity, and you put 50 per cent. on to the load, you may increase your expenses enormously because you may have to lay a new cable.

274. But up to a certain point only, using your cable more would not necessarily cost anything, would it?—I think it must cost you more if only in expenses for staff.

275. You mean that the staff were fully employed before?—The cost would be under staff and maintenance. I take it the cable companies supply an excess staff no more than we do; it would be bad administration to do so.

276. Is it at all easy to arrange the staff so as not to have a certain amount of spare time?—In arranging staff you must have a certain amount of spare time. In no staff with which I am acquainted is a man occupied every minute of every day during the time he is on duty, but you must always leave a margin, and if you double the amount of work done in your office, while you need not double the staff, perhaps, you must largely increase it.

277. In the South African case there was a large further expense incurred?—I presume so; we are talking of the cable company of course, and I have not the Eastern Telegraph Company's accounts. I simply know that their revenue, the amount they took for doing double the amount of work, was just the same as they were taking in 1898. I cannot go further than that their expenses were presumably much increased.

278. But you have not the figures and you do not know about the expenses?—I have not the company's figures and I cannot know that.

279. Only one other point; you spoke about the North American traffic and its condition by which you are allowed until 1920 to give to one of the cable companies all telegrams for North America which bear no indication of route; and you are bound not to invite the sender to specify a route. That was rather a valuable consideration, was it not?—Yes.

280. Did you get much for it?—We inherited it.

281. You did not make that concession yourself?—The history of it is this, that when the telegraphs in England were taken over by the State the Land Company that we bought up was tied to two cable companies (one of those cable companies no longer exists) and was bound to give them all its traffic. We took that obligation over and it was an obligation which lasted for 30 years, that is to say from 1870 up to 1900. We also took over an obligation that the company had a claim to a renewal, and the company did claim a renewal in 1900, and wished to go on until 1930. It was compromised at 1920. Subsequently the Anglo-American, which is the company in question, was practically amalgamated with the Western Union.

282. So that you partly inherited this condition and you bargained about it?—Yes, we bargained about the extension—the extension from 1900. They had a claim for an extension.

283. You consider they had a good claim for an extension; you could not have got out of it altogether?—We could not have got out of it, but we got out of 10 years—10 years of their claim.

284. I gather you are in thorough sympathy with a reduction in the deferred rates so as to make communications with our kinsmen in Australia easier?—We are always ready to assist at a reasonable reduction of rate.

285. But you spoke yourself just now about the desirability of people there being able to communicate home?—I said I thought the deferred rate had been a great boon to many people; I think it has, and I think it has justified itself.

286. You take it a little bit beyond the bare commercial view?—Yes, we get outside the commercial limit sometimes.

287. A little bit now and then?—We are bound to be primarily commercial.

288. (*Mr. Campbell.*) As to the competition between these rival combinations which control the Atlantic cables, is it not a fact that there is an agreement between these combinations in regard to rates?—Not that I know of; if one set fetches down its rates the other has to bring them down also, otherwise it gets less traffic, but I do not know myself of any agreement. I imagine that they consult each other; I have no doubt they do.

289. Is there not, as a matter of fact, an understanding between them with regard to rates?—Not that I know of; if so it is a private understanding with which I am not officially acquainted.

290. That is the thing on which the department depends for any reduction of rates which might be expected in the Atlantic business—that competition?—On that and on our control of the landing rights and as a mere possibility, the force of which one cannot assess now, the competition of wireless.

291. Did I understand you to say in reply to the Chairman that the Post Office would be very cautious about exercising its power over the landing rights in order to compel a reduction?—It is not an absolute control; all we can do if we refuse landing rights, unless they specify reductions, would be, if the company chose to be obdurate, to take them before the Railway Commission; and the Railway Commission is bound to have consideration of the company's financial position, among other things. It is not in our power to say simply, "If you do not reduce your rate from one shilling to sixpence, you had better take up your cable," because they have got an appeal.

292. The idea is that it would be exercised in the event of an increase of rates; is that it?—It would be properly exercised against anything unreasonable, but we should have to show that what we were objecting to was unreasonable, having regard not only to the interests of the public, but to fair consideration for the company's position.

293. With regard to the statement of the Post Office that they would not expect any volume of

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Canadian business on an Atlantic cable, the reason why that increase is not expected is stated to be to the fact that the land line is within the control of the cable companies operating across the Atlantic?—Yes, the land lines are part of the cable companies' system.

294. Is that a fact? Is it not a fact that the Pacific Cable Board at present controls the main line as far as Montreal?—As far as Montreal, yes; it rents the line, but that means that the Cable Board can get its Australian traffic transmitted to Montreal over its own lines, but you will want traffic coming not only from places on that line—to make any difference you will want traffic coming from the whole of Canada or traffic coming from the United States as well, and if it is handed in at any place other than the Pacific Cable Board's office—

295. Quite so, but still it would give a reasonable expectation that a large volume of traffic could be expected from Western Canada over the Atlantic cables?—The Pacific Cable Board themselves do not seem to expect it; in point of fact, the calculations on which we base our statement there are Pacific Cable Board calculations.

296. With regard to the loss which is theorised, to what year do those figures refer on which that expected loss of 20,000*l.* a year is based?—On the existing figures; originally when Mr. Samuel made his speech before the Imperial Conference we estimated the loss at 30,000*l.*, but the Pacific Cable Board traffic has gone up since then, we understand, so we cut our estimate of loss to 20,000*l.* to allow for that.

297. Then in a year—or, rather, in two years—the expected loss has fallen from 30,000*l.* to 20,000*l.*; do you not think there is a reasonable expectation that within a short period of time the loss would be transformed into a profit?—I do not know that you can count upon the cable companies maintaining their existing rates if they wanted to face the competition of a State-owned cable. It is clear that you can lay a State-owned cable if you like, and use it to cut rates. You can, in point of fact, get anything you please that you can pay for, whether you pay your money in the form of subsidy or a State-owned cable, or guarantee of a company's revenue; the question, which is not one for me, is, whether it would be justifiable to lay upon the general taxpayer that cost for the benefit of a comparatively small traffic and the people making it.

298. One would think it would be quite as fair as to invest the taxpayers' money in the Pacific cable, which has been losing money heavily since—at any rate, it was losing money heavily about the beginning of its career?—Yes.

299. That was the taxpayers' money?—Yes.

300. It was expended in the expectation that ultimately the line would prove a commercial success, was it not?—Yes, it has not proved a commercial success yet, of course, but it may. It will take time before it will be a commercial success in the way in which a commercial man calculates interest on his money.

301. Quite so; but a commercial success looked at from the point of view of the return of interest on the Government expenditure. Could you give the Commission any idea as to what is the relative value of the services performed by the Pacific Cable Board and the Atlantic cable companies in the transmission of messages. Is there a fair allocation of charges now on the total of the messages?—Yes, I should think there is.

302. You think the amount the Pacific Cable Board gets in comparison with the quantity of work it does is proportioned to the amount received by the Atlantic cable companies?—I slightly misunderstood the question. Yes, I should think it is, fairly.

303. You think that proportion is a fair one?—Yes.

304. In reply to the Chairman, you gave some figures dealing with the effect of the reduction of rates. Some of the figures you gave were those relating to the Eastern Extension Company's business with South Africa?—Yes.

305. And I think you quoted the years 1898, when the rate was 5*s.* a word, and 1911, when it had been reduced to 2*s.* 6*d.*?—Yes.

306. That was so, was it not?—Yes; in 1898 it was a 5*s.* rate, and in 1911 it was a 2*s.* 6*d.* rate.

307. But even on those figures, do they not show that the volume of business had increased meanwhile—had doubled?—Yes; the interesting point, I think, is that the cable company got almost exactly the same amount for the 5*s.* rate that it did for the 2*s.* 6*d.* rate, I mean in gross revenue.

308. The company was still making a profit out of its business?—That I cannot say; the company pays a dividend and a good one, but whether they would admit they made a profit over that section of their lines I do not know.

309. Still the fact remains that the company's business had doubled in the meanwhile?—Yes.

310. And, as a matter of fact, I suppose you have the figures for 1910 and 1912 before you, which show that in 1910 the receipts were 290,000*l.* and in 1912 278,000*l.*, as against 271,000*l.* in 1911?—Your figures do not quite agree with mine; it is about that, but I only quoted these South African figures, if I may remind you, to show that we really had very little trustworthy information, and that the Post Office was not in a position to offer you any expert evidence on the effect of the reduction of rate on traffic.

311. Yes, but I think you will admit that the year 1911 shows figures which are more favourable to the view you are apparently putting before the Commission than any other of the four years backwards from the present date?—If I had taken the period from 1898 to 1908 I think my view would have been still more strongly enforced.

312. But 1909, 1910, and 1912 would show —  
—1909 and 1910 were better years—1912 also is a somewhat better year.

313. On the subject of the expected increase of traffic from a reduction of rates, do you not think that in Australia, where there is a very ineffective postal communication, where there is two months between a mail and a reply, as compared with 12 days in America, there would be a very much larger field for an expected increase of business resulting from a reduction of rates than there would be in the case of America?—It might be so.

314. You think that would be so?—It might be so. The existence of the high terminal Australian rate has a bearing on the question.

315. I did not quite catch you,—New Zealand, I think, has put forward a proposal that the terminal Australian rate should be reduced from 5*d.* to 1*d.*—5*d.* is the present share that Australia takes—and Australia has not hitherto seen her way to reduce it. That is a tolerably obvious reduction of rates in hands other than ours, and that would be practically a certain reduction of 4*d.* a word.

316. On the subject of codifying, you made some replies to the Chairman: could you tell the Commission what is the saving on the coding of a message as against plain language messages?—I cannot very certainly. When Mr., now Sir John, Lamb, a much greater expert in these matters than I could claim to be, came before one of the former Committees, if my memory serves me, he then estimated that the average code word equalled seven words in plain language, and he put in a code message where one word equalled 128 words in plain language; and the cable companies always tell us that the number of plain language words represented by one code combination is very high indeed. I have very little means of knowing, because, naturally, when a man hands in a telegram he does not also hand in a translation, and it may represent anything. But there is no doubt that a man can now under the new codes, which enable him to use really what is called a condensed code—that is, a code on a code—if he likes, take more plain language into his code message than he could before. Whether he does it or not I cannot say, because I take it that it is quite possible that a man may write down his plain-language message and hand it to his clerk, and say, "Code that for me as cheaply as you can"; and the clerk may code it cheaply or not; but supposing that six plain words to a code combination is the correct

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amount, then when you use a code to Australia you are telegraphing to Australia very cheaply; you are telegraphing at sixpence a word.

317. You have not got any reliable figures that you could give us to show the saving on code messages?—No; I think you will see it is impossible for me to give any. I am simply guessing.

318. (*Mr. Garnett.*) When we were in Australia we heard certain cases which seemed to us to inflict considerable hardship on persons sending week-end cables from this country. We were told that there was not sufficient knowledge available here for them to be aware that they could only cable to the cable centres, and that unless they paid another 6d. to have their week-end cable sent on, these messages might be weeks before they reached their destination. Is there no means whereby people on this side could have it set plainly before them that if they send a cable-letter to Australia, and if they want this transmitted at once, they have an extra 6d. to pay? It seems to us that lack of knowledge as to this might inflict very great hardship?—We give the information now as far as we can. In the Post Office Guide, which may be consulted free of charge at any post office, there is a full statement of the conditions under which a cable-letter can be sent. We placarded the post offices with the announcement of the introduction of the cable-letter system, and those placards remain there, and our counter clerks, who receive the telegrams over the counter, are neglecting their duty if, when a man comes to the office and says, "I want to telegraph to Australia" (to some place, perhaps, in the back part of Australia), "what is the cheapest way in which I can do it?" they do not bring the facilities fully before him. We cannot do any more than we do. May I ask is there any suggestion of what other steps we can take? I do not think there was any such suggestion in the evidence you are referring to.

319. The evidence I am referring to was the evidence of Mr. Oxenham, the Secretary of the Postmaster-General's department in Melbourne, and the questions are on pages 175 and 176\* arising out of questions put by Mr. Bowring and myself—particularly question 3857 by Mr. Bowring?—I do not see that Mr. Oxenham proposes any additional measures to be taken here.

320. And subsequent questions asked by myself, Question 3870 to question 3877 and its answer, and 3878, and the two or three following questions. It seemed to us to be making a very large demand on the knowledge of the average individual in England in expecting him to be aware that a week-end cable letter which he might send in the faith of its being delivered very quickly, might be weeks before reaching its destination, and the question we addressed to the witness was: Is there any means whereby the Australian Postal Guide could be so improved as to make the information more accessible to your clerks here in England, and therefore more accessible to people who wished to cable? Mr. Oxenham said it was not impossible, but that it would be a very big job—see his answer to question 3878.—The clerk who receives the messages here has a list of telegraph offices. If a man were sending a cable letter to a place which did not contain a telegraph office that would be known or could be known; they have a list of all the telegraph offices. The sender of a cable letter I suppose is generally telegraphing to his friend or his relation and it is surely for him to know what kind of place it is at which his friend or relation is living. He cannot reasonably call upon the post office to go beyond a certain length in supplying his failure to furnish himself with information.

321. (*Chairman.*) That is, providing that the message goes by telegram to its destination, which I think you say you desire?—Yes, what we wish is that the single rate should cover transmission by telegram to the destination, and we hope to get the Pacific Cable Board to agree to that: we are negotiating now.

322. (*Mr. Garnett.*) The particular cases we were thinking of were not cases in the course of an ordinary day or couples of days' passage; those are not the cases of hardship. The cases of hardship are those where several weeks perhaps may elapse, but Mr. Oxenham says in answer to question 3861 that cable letters could get by telegraph to every place where there is a telegraph office; which practically means to every settlement of any size in Australia?—Yes.

323. Is it beyond the power of the combined efforts of the two Postal Authorities, here and in Australia, to compile a list whereby the man who sends a telegram by looking at the place may know that if he wants it to get away in a reasonable time to its destination he must pay an extra 6d.; it is the ignorance of the extra 6d. which has to be paid for delivery which constitutes the hardship?—I think that, if I may hand it to you (*handing the Post Office Guide to the Honourable Commissioner*), that is a pretty full explanation, but if you can suggest anything that could be added to that page which would meet your view, I am quite sure we should be ready to take any steps you can suggest to us. That book is in every post office, and can be consulted by everyone who comes in to send a telegram.

324. Then you would agree generally with Mr. Oxenham's policy, that the sender should have no trouble at all with his message, and that it should be transmitted subsequently by telegram without the sender being bothered about that?—Yes.

325. That it should be a through rate?—Yes, that is what we wish, and that is what we are trying to arrange with the Pacific Cable Board, and we hope we shall succeed.

326. (*Chairman.*) That is what you mean by a single rate, really an inclusive rate?—That is so.

327. (*Mr. Garnett.*) That would, of course, meet these cases which we have specifically in our minds?—Yes.

328. (*Mr. Bowring.*) You referred to the difficulty there would be, if there was a State-owned Atlantic cable, in getting through messages from Australasia, because there was no control by the Pacific over the land lines?—You would get the traffic from Australasia, the Pacific Cable Board could route that. You would not get all the traffic the other way, nor would you get traffic to supplement your Australasian traffic from Canada or the United States itself. The Pacific Cable Board calculated that three-fourths of the Australasian traffic would go to the proposed State-owned cable, and it is on the assumption that three-fourths of the traffic would go to the cable that we made our calculations.

329. And upon that you show a big loss?—Upon that we think there would be a loss of 20,000*l.* under present conditions.

330. But it would not appear that the land lines create any great difficulty if the control of the Pacific comes as far east as Montreal?—I think, perhaps, I have been misunderstood; I was answering the Chairman's question, if I remember aright, whether we could expect any traffic over the State-owned cable from the United States or Canada itself to supplement the Australasian traffic. The Australasian traffic is not enough to make the cable pay. If you could supplement that traffic by traffic from Canada or the United States the circumstances would be altered, but we have no hope of doing so.

331. And it was in that way that the difficulty came in with the land lines?—Yes.

332. Not the difficulty in connecting the Pacific cable with the proposed State-owned Atlantic cable?—No, there is no difficulty in that. If you had the State-owned cable, you would have to rent or set up land lines between Montreal and the cable-landing station, and it is that which goes to make part of the assumed capital expenditure of 560,000*l.*; but there would be no difficulty about that.

333. The land part of it from Montreal to the east coast would not be very much?—No.

334. At the present time, while there is competition between the Atlantic cables in endeavouring to get as great a part of the business as they can, there is no

\* Of [Cd. 7171].

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difference in rates, is there?—There is no difference in rate, except that the Commercial group did not in every case give a similar reduction to that given by the Western Union on the deferred press. They did not follow suit altogether.

335. The Commercial did not follow suit on the press rate: in every other way the rates are the same?—The rates, taken generally, are the same.

336. On these deferred rates were the addresses allowed to be coded in any way, that is to say, addresses on deferred and week-end messages, or had the addresses to be in full: in other words, could you have a short registered address?—You can use a registered address for deferred messages as well as you can for an ordinary message. You must use plain language in your text.

337. Could you code the address?—You can use a registered address.

338. (*Chairman.*) Both for deferred and week-end?—You cannot for the week-end cable letter, unless delivered by telegram, when you can do it. If it is delivered by post, you must have your full postal address. Nor can we consent to such an alteration, because it would form a precedent adverse to our refusal to admit telegraphic addresses as good for letters. If you telegraph your week-end cable letter all the way, then you can use your telegraphic address.

339. And that you advocate?—That we advocate.

340. So that in effect you advocate the possibility of using telegraphic addresses for week-ends?—Yes.

341. (*Mr. Bowring.*) Can you tell me if there was any alteration in the dividends of the cable companies whilst the 6d. rate was in vogue? You remember you referred to the 6d. rate having been adopted in certain years—1896, I think?—There was a heavy loss on that 6d. rate in the revenue, but I forget whether they continued to pay a dividend or not.

342. Did not you say they did about double the business for about the same revenue?—140 per cent., but their revenue dropped tremendously.

343. I think you said they did twice the business for the same revenue?—I think you are confusing two cases, that of the Transatlantic cable company and that of the South African rates. There was a 1s. 8d. rate when the Transatlantic cable companies fell into very sharp competition, and the rates came down to 6d. I have some figures from the Anglo-American Company at that time and their revenue dropped very heavily indeed. The reduction proved unremunerative.

344. Did the traffic increase?—By 140 per cent. The reduction was from 1s. 8d. to 6d.

345. You say the revenue fell tremendously?—It fell tremendously.

346. Do you know whether that had any effect on the dividend?—I cannot say.

347. (*Mr. Tafford.*) With regard to this proposed Atlantic cable, if the estimate of the Post Office had been to show that the cable would be anywhere near self-paying, I presume the Post Office then would be in favour of such a proposal—if instead of a loss of 20,000l. it had been some inconsiderable sum?—The Post Office position is that the present time is inopportune in all ways. We know that wireless telegraphy is developing by leaps and bounds. We do not know what effect wireless telegraphy may have in cutting rates, and no sooner would the State-owned cable be laid than you might find there was no chance of making it pay at the new figures.

348. Then it is chiefly on the score of what wireless telegraphy may fulfil that the Post Office objection exists?—No, I think the Post Office objection is mainly based on what it considers to be the absence of good reasons alleged on the other side.

349. Does not the good reason alleged on the other side probably tend to reduction of charges and keeping the control of the cable throughout in Imperial hands, and so meet the express wish of the Oversea Dominions?—We are always most anxious to meet the express wish of the Oversea Dominions, but if the single cable barely pays its way one single interruption would throw you on the wrong side of the balance sheet again. Interruptions are more frequent, or have been at present

far more frequent, in the Atlantic than in the Pacific, apparently due to some difference in the sea-bed. You might have to lay another cable and that probably would double your cost.

350. But that risk exists at present in a lesser degree, you say, in the Pacific cable?—It exists to a lesser degree in the Pacific cable, and at any time a bad interruption might alter the figures for the Pacific cable.

351. The effect of an interruption would be to reduce their profit or income for a given time?—Yes.

352. It would not affect the public in any considerable degree, because the business could be done by the other parties?—You would have the alternative routes.

353. Do you not think that estimate of a loss of 20,000l. looks a little worse than is warranted by the facts? Have you taken into account the natural yearly increase in the business of telegraphy?—Yes.

354. And, again, does it not appear as if there will be further advantages given by the Pacific Cable Board and that business will very largely increase from Australasia? Will not that minimise greatly, in the course of years, this estimated 20,000l. loss?—We calculate to get three-quarters of the Australasian westward traffic as it is and all the eastward: I do not know why we should get very much more.

355. No, but is it not likely that the bulk of that will increase largely? The business is not likely to stand still, especially in view of the additional facilities which are contemplated?—That is so: the traffic might increase.

356. Considerably. Would it not reduce this 20,000l. to a comparatively small sum—such a sum that the countries concerned might very well bear it, and which in the course of years would probably disappear?—We cannot tell.

357. To my mind it seems very probable. Another question: Assuming this Atlantic cable were made, would it be administered by the Pacific Cable Board as an extension of the present cable?—It might be worked in several ways: it might be jointly owned by England and Canada.

358. In any case it would give Britain and the Dominions a very large control, and a greater control than they have at present, with reference to the question of rates?—Certainly: you can lay your cable and use it to cut rates. If you cut rates you increase your traffic.

359. Has the Pacific Cable Board, apart from its obligations, whatever they may be, to the Eastern Telegraph Company, a free hand as a Board with regard to the fixing of the charge?—They could say, "We will take so much, or we will take so much less."

360. Is the Post Office represented on that Board? This country is represented.

361. What is the real distinction—I do not quite understand—between week-end cable letters and week-end cablegrams: is there any distinction? There is only one week-end rate to Australia: is that a week-end cablegram or cable letter, or is there any distinction?—There is no distinction: we call them cable letters.

362. That means a cablegram with a minimum number of words, does it not?—Yes, it is a short letter sent by cable. Of course, you can send a telegram by cable at the week-end, if you like, in the ordinary way.

363. (*Mr. Lorimer.*) In your memorandum a reference is made to the contention that a State-owned cable should be laid across the Atlantic in case of emergency, and your reply is that that emergency can be met perfectly well under present conditions: will you kindly say how it could be met?—I am prepared to support that contention.

364. It is stated in the memorandum on a State-owned Atlantic cable furnished by the General Post Office to the Commission.—At present the 13 cables across the Atlantic start from British territory and land in British territory.

365. But do you suggest that you would take possession of these terminals and turn out the existing operators and put in your own?—It is rather a question

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for a naval or military witness than myself, as I explained in the statement I read out to-day; it is more a matter for those Government services charged with defence than the Post Office, but it could be done quite well.

366. On looking at the whole question from the broad point of view, which naturally we have to consider, one naturally thinks of what might follow. Do the landing licences make any provision for action such as I suggest in a case of emergency?—It does not depend on landing licences merely, but it is surely inherent in the fact that these stations are on British territory that if there is an emergency they could be occupied.

367. If we were in a difficulty with which the United States had nothing to do, and you were to take possession of all the cables, I am afraid that would be regarded as an act of war. It would be a course anyhow which would involve very serious consequences?—I have no doubt. Again, I am afraid I must remind you this is rather outside my scope as a mere Post Office servant, but the fact that the cables are owned by Americans does not interfere with the other fact that they begin and they end on English territory, and I should think it would be within our power to deal with them accordingly.

368. Assuming the United States had nothing to do with the quarrel which created this emergency, can you imagine they would calmly acquiesce in their communications with the rest of the world being paralysed indefinitely?—I am afraid that is outside my scope.

369. I think, perhaps, you would admit that the consequences might be so serious that the 20,000*l.* which the State-owned cable across the Atlantic would cost would be a mere flea-bite as compared with what might occur in another way?—I imagine that you are leaving out of mind the possibility that the cables could be cut. A State-owned cable could be cut as well as another cable, and it does not take an ironclad to cut it.

370. That is a possibility, of course, but there would be 19 chances to 1 against the State-owned cable being cut, would there not?—I do not see why.

371. At all events all I wanted to point out in my question was this, that there are very serious potentialities in the present circumstances, and that these would be partially at least—I do not say wholly—not by a State-owned cable?—I could imagine that a cable landed on American territory, supposing we were involved in a quarrel with which America was not concerned, would be safer than if it were landed in English territory because the Power supposed to be at war with us would, I should think, hesitate before risking a violation of American neutrality by cutting their end of the cable, although they might cut ours.

372. Quite so; but as a matter of fact the landing is in British territory, is it not?—Yes.

373. And that difficulty could only be obviated by removing the terminal?—Yes.

374. (*Sir Rider Haggard.*) Am I right in inferring from an answer you gave that you view the possibilities of wireless telegraphy as being very great in the matter of competition with the cable telegraphy?—One hesitates to speak positively, because we know so little of wireless telegraphy as yet, but everything goes to show that the possibilities are very great.

375. So that it is possible, I presume, that the system of wireless telegraphy might entirely supersede the existing system?—It is guessing so wildly to say anything of the kind that I hesitate to answer, but the possibilities of wireless can hardly be over-stated I imagine.

376. Speaking as an ignorant layman on the matter, wireless has great advantages, has it not, in the matter that it cannot be cut?—It cannot be cut.

377. Am I rightly informed in what I have heard, namely, that systems are being introduced by which the messages can be kept secret?—One of the great discoveries yet to be made in wireless is the direction of the wave. If, for instance, instead of the wireless

message being distributed all round the points of the compass, it could be confined within a certain section, we should have gone a long way.

378. Are there not indications that that end is in the way of being attained?—I am not a wireless scientific expert, and I cannot say, but I know that people are experimenting in that direction. The attention of everybody is turned upon it.

379. In the present state of the wireless undertakings, does it or does it not make it a little rash to invest large sums of capital in the laying down of fresh submarine cables?—One could hardly say; I think it is an additional argument against experimenting in the direction of a State-owned cable.

380. (*Chairman.*) There is only one further question I have to ask to make the point quite clear; you estimate that the cost of an Atlantic cable would be 20,000*l.* a year minus whatever traffic you obtained from the North American continent and Canada?—Yes, the loss is 20,000*l.*

381. The loss is 20,000*l.* assuming you get no traffic whatever from Canada?—Yes.

382. Now would you kindly read your second memorandum on the subject of mails?—Yes.

*The following are the questions submitted by the Commission and the Memorandum in reply:—*

#### MAILS.

##### *Questions.*

(a) In regard to mail subsidies generally, on what basis is the amount of payment determined, *e.g.*, weight of mails conveyed, speed, regularity of service, other postal facilities?

To what extent have considerations, other than the performance of postal work, such as Admiralty requirements, option of purchase, non-alienation from British flag, &c., been taken into account in negotiating mail contracts?

(b) It is understood that the system of mail contracts for a term of years at a fixed annual subsidy has hitherto been preferred to that of despatching the mails periodically by the fastest ship on the berth. The Commission would be glad to know whether the General Post Office has any experience of the carriage of important mails by the fastest ship on the berth at the statutory rate of *5*l.** per article or at any other rate.

It has been suggested to the Commission that the system of utilising the fastest boat offering is likely to have the result of developing healthy competition and therefore in the end of improving mail communications more rapidly than if preferential treatment and a monopoly or quasi-monopoly is established.

(c) It has further been suggested that a system of conveyance of mails by the fastest ship offering would have special advantages in the case of Australia and New Zealand, as several non-subsidised lines have vessels of a sea speed only slightly inferior to that of the mail steamers. Could figures be given showing the extent of the saving—

(a) to H.M. Government,

(b) to the Commonwealth and New Zealand Governments,

if this course were adopted, and if the mails to and from Australasia were carried wholly by sea and not, as at present, partly overland?

(d) The contract between the Postmaster-General and the P. & O. Co. dated August 7th, 1907, provides for termination on January 31st, 1915, if notice is given 21 months beforehand by either side. Has such notice been given yet, and, if not, is it in contemplation in the near future to enter into negotiations for a fresh contract?

In this connection the Commission notes that the House of Commons Committee on Steamship Subsidies, which reported in 1902, recommended that the final negotiations should be placed in the hands of a small permanent committee consisting of representatives of the Government Departments concerned and also of shipping and commerce. They would be interested to

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know whether this recommendation has been carried out, and, if not, what reasons were thought to militate against it?

*Memorandum from General Post Office in reply to the above questions.*

In a postal contract the annual amount of payment for the conveyance of mails may be (i) fixed or (ii) based on a poundage rate—in which case the total payment will vary according to the weight of the mails conveyed—or (iii) based on a combination of (i) and (ii).

In any case the amount of payment to be made under a new contract would generally be determined roughly by the amount which would have to be paid for the conveyance of the mails in the absence of a contract with the Postmaster-General. This amount would be calculated in one of two ways—first, the Postmaster-General has the statutory right to despatch mails to foreign countries generally at the rate of  $\frac{1}{2}d.$  per article of correspondence irrespective of the distance over which the mails are conveyed; and the amount payable on this basis would furnish an estimate of the postal value of the contract service. Secondly, under the terms of the Universal Postal Convention every country included in the Universal Postal Union has the right to despatch letter mails by services maintained by other countries included in the Postal Union in return for payment at fixed rates varying with the distance of the sea conveyance; and the amount which would be payable in this way under Postal Union conditions would give a further estimate of the postal value of the service. The estimated value of the service for the conveyance of parcel mails would be added to its value for the conveyance of letter mails to ascertain its total value. The estimate is usually based on the assumption that  $4d.$ ,  $8d.$ , and  $1s.$  are allotted to the sea service at the three steps of the parcel post scale, or on the Postal Union parcel rates, unless contract rates are available.

The figure thus obtained, while furnishing a convenient rough comparison, cannot, however, be taken as affording an adequate measure of the fair price to be paid for any particular service. Within fairly wide limits the actual quantity of mails to be conveyed is a matter of relatively small importance to a contractor as compared with the obligation to maintain a regular service at fixed intervals throughout the year. In a service where the passenger and freight traffic fluctuates considerably at different seasons and where the quantity of mails is comparatively small, it may be necessary, in order to secure a regular mail service, to pay a sum substantially in excess of the "Postal Union value." Other factors which have to be taken into consideration are the speed and frequency of the service, the period of the contract, the extent of the company's responsibility for the mails, and so forth.

Special circumstances of this nature are always present in a more or less marked degree, and must generally be regarded as adding to the cost of the contract service. Besides providing for the regular performance of the service at the desired intervals a contract usually contains provisions as regards—

- (1) speed;
- (2) liability of company in case of loss or damage of mails;
- (3) the amount of the penalties to be exacted from the company in the event of non-performance or delay of the whole or part of the service on any occasion;
- (4) the Postmaster-General's control over the sailings;
- (5) the expense of landing and embarkation of mails;
- (6) the period of duration of the contract, and the length of notice of termination required;
- (7) condition that no undue preference shall be shown to foreigners in the company's carrying business.

Further provisions may be made as regards—

- (8) sea-sorting accommodation;
- (9) the Postmaster-General's power to delay sailings;

- (10) Admiralty requirements;
- (11) cold storage accommodation;
- (12) conveyance of Government passengers.

Due consideration has to be given to the requirements of the Admiralty in the negotiation of an important mail contract. For example, the following mail contracts contain Admiralty clauses:—

Company.	Date of Contract.	Nature of Clause.
Peninsular & Oriental Steam Navigation Company.	1908	Option of purchase, &c.
Royal Mail Steam Packet Company (West Indian Service).	1911	Do.
Union-Castle Mail Steamship Company.	1912	Do.
Cunard Steamship Company.	1903	Option of purchase, &c., and special conditions.

One of the essential features of a satisfactory mail service is regularity throughout the year, so that the same day and time of despatch may be maintained. If the Postmaster-General's statutory right to despatch "ship-letter" mails were relied on for the provision of a mail service, there would be no guarantee of regularity. Also during the less busy seasons of the year when the passenger traffic is small, the fastest steamers would be withdrawn, with the result that none but the slower steamers would be available for the despatch of mails. Again, the shipping companies would be able to choose their own itinerary, which would be arranged without regard to the advantages of the mail service, while considerable expense might be incurred by the Post Office in the transfer of the mails to or from the steamers at the times and places most convenient to the Department.

Considerable trouble and consequent expense is being given at the present time by the fact that the mails for Canada under the new Canadian contract are sent, some from Glasgow, some from Liverpool, and some from Bristol, and that the sorting arrangements throughout the United Kingdom have to be altered according to the port of despatch.

During the recent labour troubles all the important contract mail services were maintained with very little irregularity at times when most of the services in respect of which owners were under no contract obligation to provide regular sailings were disorganised.

An attempt was made in 1877, in response to a public demand, to maintain the outward American mail service by the use of the fastest steamers available, as was already the practice of the United States Post Office in the case of the inward American mail. The experiment was, however, of short duration, as it gave rise to general dissatisfaction not only on the part of the steamship companies which owned the faster steamers and desired to retain the whole of the traffic under the former conditions, but also on the part of the general public, in whose opinion the service had deteriorated—as, indeed, it had.

The direct mail service between the United Kingdom and the West Indies was maintained for about two years from the 1st July 1905 on a ship-letter basis, as a satisfactory tender for the service was not forthcoming. The result was most unsatisfactory; the ships left on varying days, and the day of despatch was frequently altered at short notice. The Post Office was ultimately compelled by public opinion to enter into a contract for regular sailings. At the present time a weekly service to Jamaica is maintained on a ship-letter basis by Messrs. Elders and Fyffes' direct



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steamers in addition to the service *viâ* New York, while the mail service with the north of Brazil (Parâ and Manâos) is performed by Booth Line steamers under the same conditions. Generally speaking, the application of ship-letter rates is limited to cases where the volume of traffic is not sufficient to justify a contract, as in the case of the routes for which correspondence must be specially addressed.

The experience of the Post Office does not support the opinion that a departure from the contract system to the use of the fastest ships available would lead to any economy or to an increase in the efficiency of the mail services. Postal contracts are not usually made for long periods, and at the termination of a contract tenders for the service are openly invited, the market price of the service thus being tested periodically and competition developed wherever effective competition is possible. Any slight acceleration which would be afforded at certain periods of the year by the employment in all circumstances of the fastest ship available would be more than counterbalanced by the irregularity of the service and the absence of advantageous conditions which are ensured under a contract.

It has been agreed that notice to determine the contract between the Postmaster-General and the Peninsular and Oriental Steam Navigation Company shall not be given before the 31st January 1914, the earliest date of termination thus being the 31st January 1916. The conditions of the maintenance of the service after the latter date have not yet been determined.

The suggestion made by the House of Commons Committee on Steamship Services in 1902 that a permanent committee, consisting of representatives of the Admiralty, Board of Trade, Colonial Office, and Post Office and representatives of shipping and commerce, should be set up to consider all proposals involving the grant of subsidies to shipping companies, was not adopted because it was anticipated that the inclusion of representatives of the shipping companies in the committee would lead to difficulty when the committee was considering the negotiation of a contract with a shipping company. Even if the representatives of shipping and commerce were left out, it was felt that a single department was better able to carry on negotiations than a committee. Departments concerned are, of course, consulted by the Post Office, which is mainly concerned in the con-

tract, and it is thought that the procedure works well and saves time.

The annexed tables show the steamship companies performing the contract mail services to Australia *via* the Suez Canal, and several other typical British steamship companies carrying on trade with the Antipodes. There are, of course, many other casual traders from this country to Australian ports, but the steamers engaged are mostly "tramps" of slow speed.

It will be observed that no other company approaches in the matter of speed that actually possessed by ships of the two mail contracting companies. The average sea speed required for the performance of the mail contracts to Australia is 15·16 knots an hour.

In the case of the Peninsular and Oriental Company, the mails from London are of course sent overland to Brindisi and conveyed thence to Port Said by the express packets, where they are transhipped to the main line packet; while in the alternate week, when the service is performed by the Orient Line, the mails are sent to Tarantô and embarked there on the main line packet. On arriving in Australia the mails for Western Australia are disembarked at Fremantle, and those for South Australia, Victoria, New South Wales, Tasmania, New Zealand, and adjacent islands are carried on to Adelaide, where they are disembarked and forwarded to destination by train and steamer. The contract period of transit from Brindisi and from Tarantô to Adelaide is 638 hours (26 days 14 hours).

The service performed by the Messageries Maritimes Company under contract with the French Post Office takes 34 days from Marseilles to Adelaide with calls at Port Said, Suez, Aden, Bombay, Colombo, and Fremantle. The North German Lloyd despatches a packet every 28 days from Bremerhaven to Australia calling at Antwerp, Southampton, Algiers, Genoa, Naples, Port Said, Suez, Aden, Colombo, and Fremantle. The voyage from Bremerhaven to Adelaide occupies 45 days, but the course of post from London *via* Naples would be 33 days.

There are in addition services across the Pacific used by this office for the transmission of mails to New Zealand, *viz.*, that performed by the "Canadian and Australasian Line," from Vancouver, and a service *via* San Francisco performed by the "Canadian and Australasian" Line in conjunction with the "Union Steamship Company" of New Zealand.

*Annexure.*

Shipping Company.	Names of Packets.	Tonnage.	Speed.	Ports of Call.	Length of Voyage from London.
			Knots.		Days.
Peninsular and Oriental Steam Navigation Company, under contract with Imperial Post Office for mail service to Australia.	Maloja - - -	12,431	18½	London (Tilbury)	—
	Medina - - -	12,350	18½	Gibraltar - - -	4
	Morea - - -	10,890	18½	Marseilles - - -	7
	Mantua - - -	10,885	18½	Port Said - - -	11
	Malwa - - -	10,883	18½	Suez - - -	12
	Macedonia - - -	10,512	18½	Aden - - -	16
	Marmora - - -	10,509	18½	Colombo - - -	22
	Mooltan - - -	9,621	18½	Fremantle - - -	32
	Mongolia - - -	9,505	18½	Adelaide - - -	36
	Moldavia - - -	9,500	18½	Melbourne - - -	38
				Sydney - - -	41
Peninsular and Oriental Branch Line to Australia <i>via</i> the Cape (late Blue Anchor Line, Limited).	Ballarat - - -	11,120	14	London (Albert Dock).	—
	Beltana - - -	11,120	14	Canary Island - - -	6
	Benalla - - -	11,118	14	Table Bay - - -	21
	Commonwealth - - -	6,616	14	Adelaide - - -	40
	Geelong - - -	7,951	14	Melbourne - - -	45
	Wilcannia - - -	4,953	13	Sydney - - -	50
Orient Steam Navigation Company, Limited, under contract with Commonwealth Post Office for mail service to Europe.	Orama - - -	12,927	18	London (Tilbury)	-
	Orontes - - -	9,023	18	Gibraltar - - -	4
	Orsova - - -	12,036	18	Toulon - - -	6
	Orvieto - - -	12,130	18	Naples - - -	8
	Osterley - - -	12,129	18	Taranto - - -	9
	Otranto - - -	12,124	18	Port Said - - -	12

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Shipping Company.	Names of Packets.	Tonnage.	Speed.	Ports of Call.	Length of Voyage from London.
			Knots.		Days.
Orient Steam Navigation Company, Limited— <i>cont.</i>	Otway - - -	12,077	18	Suez - - -	13
	Omrah - - -	8,130	17	Colombo - - -	22
	Ophir - - -	6,814	17	Fremantle - - -	32
				Adelaide - - -	36
				Melbourne - - -	38
				Sydney - - -	41
				Brisbane - - -	45
Aberdeen Line. Thompson, Geo., & Co., Limited.	Demosthenes - -	11,223	15	London - - -	—
	Marathon - - -	7,827	15	Plymouth - - -	1
	Miltiades - - -	7,814	15	Teneriffe - - -	5½
	Themistocles - -	11,231	15	Cape Town - - -	20
	Moravian - - -	4,573	14	Melbourne - - -	40
				Sydney - - -	43
				Brisbane - - -	46
Milburn Line and Anglo-Australasian Steam Navigation Company.	Port Lincoln - -	7,243	13	Middlesbrough - -	—
	Port Curtis - -	4,710	12	Hull - - -	—
	Port Hunter - -	4,062	10	London - - -	—
	Port Phillip - -	4,060	10	Suez Canal - - -	13 approx.
	Port Augusta - -	4,063	10	Adelaide - - -	50 ..
	Port Caroline - -	4,076	10	Melbourne - - -	55 ..
	Port Chalmers - -	4,077	10	Sydney - - -	60 ..
	Port Kembla - -	4,700	12		
	Port Macquarie - -	7,236	13		
	Port Pirie - - -	4,068	10		
	Port Albany - -	9,000	13		
Tyser Line and Colonial Line -	Hawkes Bay - - -	10,641	13	London - - -	—
	Makarini - - -	10,624	13	Suez Canal - - -	12 approx.
	Marere - - -	6,443	12	Auckland - - -	48 ..
	Mimiro - - -	6,225	12	Wellington - - -	51 ..
	Muritai - - -	7,280	12		
	Nerehana - - -	6,533	12	London - - -	—
	Niwaru - - -	6,444	12	Suez Canal - - -	12 approx.
	Whakarua - - -	6,534	12	Melbourne - - -	45 ..
				Sydney - - -	50 ..
Bethell, Gwyn & Co., London Line.	Chartered ships -	Variable	About 10	London - - -	—
		5,000		Suez Canal - - -	13½
		to		Melbourne - - -	49
		10,000		Sydney - - -	54
				Fremantle - - -	42
				Albany - - -	45

Shipping Company.	Names of Packets.	Tonnage.	Speed.	Ports of Call.	Approximate Length of Voyage from London.
			Knots.		Days.
New Zealand Shipping Company, under contract with Imperial Government for conveyance of parcels to New Zealand	Hurumui - - -	8,901	14	London - - -	—
	Remuera - - -	11,276	14	Teneriffe - - -	6
	Rotorua - - -	11,130	14	Cape Town - - -	21
	Ruahine - - -	10,758	14	Hobart - - -	41
	Kaikoura - - -	6,998	13	Wellington - - -	46
	Kaipara - - -	7,392	13	Lyttelton - - -	47
	Opawa - - -	7,230	13		
	Orari - - -	7,027	13		
	Otaki - - -	7,420	13		
	Rimutaka - - -	7,952	13		
	Rosscommon - -	7,381	13		
	Ruapehu - - -	7,885	13		
	Tongariro - - -	8,073	13		
	Turakina - - -	8,349	13		
	Tyrone - - -	6,664	13		
	Limerick - - -	6,827	12		
	Paparoa - - -	7,749	12		
	Westmeath - - -	8,096	12		



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Shipping Company.	Names of Packets.	Tonnage.	Speed.	Ports of Call.	Approximate Length of Voyage from England.
			Knots.		Days.
Shaw, Savill, and Albion Company, under contract with Imperial Government for conveyance of parcels to New Zealand.	Arawa - - -	9,372	14	London - - -	—
	Tainui - - -	9,957	14	Plymouth - - -	1
	Kia Ora - - -	6,558	13½	Teneriffe - - -	6
	Mamari - - -	6,689	13½	Cape Town - - -	21
	Pakeha - - -	10,481	13½	Hobart - - -	41½
	Rangatira - - -	10,118	13½	Wellington - - -	47
	Waimana - - -	10,389	13½		
	Matatua - - -	6,488	13		
	Karamea - - -	5,564	12		
	Kumara - - -	6,034	12		
	Tokomaru - - -	6,238	12		
	Waiwera - - -	6,237	12		
White Star Line:—					
Australian Passenger Service	Runic - - -	12,482	13	Liverpool - - -	—
	Medic - - -	12,032	13	Cape Town - - -	20
	Afric - - -	11,999	13	Albany - - -	35
	Suevic - - -	12,531	13	Adelaide - - -	40
	Persic - - -	12,042	13	Melbourne - - -	43
	Ceramic - - -	18,600	13½	Sydney - - -	50
Australian Cargo Service	Cufic - - -	8,249	12	Liverpool - - -	—
	Tropic - - -	8,230	12	Adelaide - - -	46
	Irishman - - -	11,585	12	Melbourne - - -	50
	Georgic - - -	10,077	13	Sydney - - -	55
	Bovic - - -	6,583	13	Brisbane - - -	62
	Belgie - - -	10,151	12		
New Zealand Passenger Services in conjunction with Shaw, Savill, and Albion.	Corinthic - - -	12,231	13	London - - -	—
	Ionic - - -	12,232	13	Plymouth - - -	1
	Athenic - - -	12,234	13	Teneriffe - - -	6
				Cape Town - - -	21
				Hobart - - -	41½
				Wellington - - -	47
				Lyttelton - - -	48

Shipping Company.	Names of Packets.	Tonnage.	Speed.	Ports of Call.	Approximate Length of Voyage.
			Knots.		Days.
Ocean Steam Ship Company - A. Holt & Co.	Æneas - - -	10,049	14	Liverpool - - -	—
	Anchises - - -	10,046	14	Canaries - - -	6
	Antiochus - - -	9,039	14	Cape Town - - -	19
	Ascanius - - -	10,040	14	Melbourne - - -	42
				Sydney - - -	45

383. You mention the statutory rate at which mails should be conveyed: how does that rate compare with the ordinary rates on valuable freight? Is it very much in excess of what is got for ordinary freight?—We have not any very definite information about the rates for valuable freight: they are probably a matter of bargaining between shippers and consignors, but I should think the statutory rate would be equivalent to a high rate for freight.

384. What does it work out at per ton?—We make it work out at 224*l.* per ton for letters and post cards.

385. What does the Postal Union rate for sea distances over 50 miles work out at?—It works out at over 300*l.* per ton.

386. So that these rates constitute a very valuable prize if given to the fastest ship on the berth?—Yes.

387. Therefore competition for obtaining a portion of the postal traffic would be a distinct stimulus to outside lines to furnish fast regular sailings?—Lines outside the present mail contractors, if they are going to compete and if they are to build ships at all comparable to those run by the Peninsular and Oriental and by the Orient (I mean any of the faster ships), would have to build a new fleet; otherwise the

ships which are now conveying the mails are still the fastest.

388. They would have to build a new fleet if they intended to compete for the postal contract?—Yes.

389. But they would only have to build new vessels if they intended to come in occasionally?—They would have to build one or two, and even that would be a very expensive matter if they were building them simply to capture a somewhat small proportion of the mail.

390. Under the present arrangement, that inducement to build fast vessels does not exist?—I presume you are thinking more particularly of the Peninsular and Oriental Service. If any shipping company wishes to tender for the Eastern Service, supposing that the Eastern Service remains under anything like existing conditions, that company will have to contemplate the possibility of being called upon to build a new fleet between the present time and the time when the contract is decided.

391. And that would involve the construction of how many vessels?—I should not like to say. The P. & O. have ten vessels of 18½ knots—I daresay less would do—the Orient have seven vessels of 18 knots.

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392. And in effect is the competition for a share in the subsidy limited to companies who either have or are prepared to build a large fleet of that kind?—It appears to be limited to companies that can in any way meet the requirements of the contract. You have used the inhabitants of India and Australia to have their mails delivered at a certain speed and with a certain regularity, and it would undoubtedly be felt very severely if we entered into a contract which did anything to deprive them of those facilities.

393. The point I am upon now is the limited competition which exists when the question arises of a renewal of the subsidy contract; how much real competition exists?—It is very restricted indeed as any tender for a difficult service of a very high class must be restricted. I think it would be the same in the engineering world; for instance, if you wanted tenders for a fresh Assouan dam there would not be very many firms which would be capable of offering for it.

394. Then assuming that the contractors do not come up to the requirements you think reasonable, what recourse have you?—You mean if they do not tender?

395. If they do not tender either with conditions you think adequate, or for prices you think reasonable?—It becomes a sheer matter of bargaining. I am afraid.

396. And if you do not come to terms, what means have you of applying pressure?—It is very difficult to give a satisfactory answer; we must do the best we can.

397. You are somewhat powerless, are you not?—We are not in a good position in that case, of course; if the tenders can only be taken up by very few firms, naturally you are not in as good a position as if you had a very large competition.

398. The view has been put forward (I will put it to you briefly) that these postal contracts give a quasi-monopoly for the carriage of the mails?—The quasi-monopoly in such a case exists almost by itself, and the Post Office has very little option but to go to the monopolist.

399. Then you would agree with this: that the effect of the existence of this quasi-monopoly is to discourage outside competitors from building fast vessels which might, were there no monopoly, have a share of the postal cake?—I think it is good evidence if the others do not compete for the mails, that we have made a reasonably good bargain. Otherwise if the P. and O. were profiting so very largely under the contract, it would be worth somebody's while to build and go into competition with them.

400. But you have said the amount of capital required is very large?—It is very large.

401. And therefore the competition is limited to a very few groups?—Yes.

402. Now with regard to the cost of the Overland Mail, sending the mails across Europe to Brindisi, we have had, of course, to consider the merits of the alternative routes by the Cape and otherwise, and I should like to have your view regarding the advantages of Brindisi, and also to know what the additional cost of Brindisi is, and I include Taranto?—The additional cost is about 60,000*l.* paid to France, and about 40,000*l.* to Italy really for the mail service—a special train—but the system of payment is based on the Postal Union plan, a charge per kilogramme on letters and parcels respectively, and it varies.

403. So that in fact having to send mails by Brindisi and Taranto costs you 100,000*l.* per year more than those same mails would do if sent by the sea route?—I could not estimate it exactly; the cost is very much heavier, if I might be permitted to leave it there. On the other hand you get the increased speed.

404. You get a gain of what?—Two or three days.

405. I think you have given us figures showing that if the mails at present carried by the Suez route to and from Australasia were conveyed wholly by sea at shipping rates, the saving would be approximately 165,000*l.* year?—Approximately.

406. And that would be increased to 200,000*l.* a year if all the mails to and from Australasia were carried in this manner?—Yes.

407. Are those correct?—Yes, those figures are approximately correct. I have not much confidence in them; they are difficult to get at the present time.

408. Have any alternative routes for the present Brindisi and Suez routes been considered by the Post Office for the carriage of mails to and from Australasia?—We considered other ports; we considered Marseilles, and Reggio was suggested once; we considered sending them through Switzerland and we considered Salonica, and none of them were held to be as good as Brindisi.

409. Do you see the probability in the near future of any alternative route being equally good or preferable to that?—No; one can hardly say what will happen at Salonica, but to send the mails to Salonica would be sending them across a much larger number of countries, and each country would have to be paid, so that the expense would be very much higher.

410. The objections to Brindisi would be increased in the case of Salonica, comparing both routes to the all-sea route where the mails would be carried in British vessels?—Yes.

411. Comparing that route with the possibilities of the Cape route to Australia, what would you say?—The Cape route is much longer and you have not ships of the requisite speed running on the Cape route.

412. Have you considered at all the possibility of creating a Cape-Australasia route as an alternative to the present Suez route?—A small amount of parcel load is sent by the Cape at present, but talking of the letter mails, we think it would be impossible.

413. Why do you think it would be impossible?—Because it is so much longer and because you have not the vessels.

414. Are you quite correct in saying it is much longer?—It is some hundreds of miles longer.

415. Assuming the possibility of covering the distance in approximately the same time, do you consider an all-ocean route of that character has large advantages over the trans-Europe or trans-Mediterranean route or not?—I doubt whether it has; by having a trans-European or trans-Asiatic route you get the advantage of a service which can be used for the Indian mails as well as for the other.

416. In the other case you get, of course, the advantage of the African mails?—Yes.

417. In the one case you have India and in the other case you have Africa?—Yes.

418. One of the clauses in one of your contracts which you mention, Article 7 on page 6, of the P. and O. contract, has the condition that no undue preference shall be shown to foreigners in the company's carrying business?—Yes.

419. How do you enforce or how can you enforce that?—If we had a complaint and the complaint was substantiated, and the company refused to alter their procedure, they would fall under that clause which enables the Postmaster-General in case of any notable breach of the contract to determine the contract at once.

420. Do you place any condition on the mail companies which carry your mails about joining or not joining shipping conferences?—No.

421. That has never been included in any of the contracts?—Not that I am aware of.

422. (*Mr. Campbell.*) Taking the whole of the Australian business into account, would you say that the business pays the department?—I do not think we made a bad bargain.

423. What I mean is: taking the fact into consideration that you pay a subsidy to the P. and O. Company, is your business with Australia remunerative? Is there or is there not a loss on the Australian business to the postal department?—It may be taken that the Australian service is not remunerative. In the case of most of the foreign letter services the question is simply how much of the loss will you bear, and when you come to the Colonies which are served by the penny post it is all loss.

424. The postal department is not governed by the same policy in respect of postal services as it is in

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respect of telegraphic services, that is to say it is prepared to give a subsidy for cheaper and quicker service in respect of the mails, whereas the attitude in regard to telegraphic service is different?—Speed is a condition, and a valuable condition, but what we pay for in giving subsidies to the mail companies is regularity.

425. Do you get that regularity?—Certainly.

426. Is there any regularity in the delivery of Australian mails in England? Are the mails delivered on the same day in each week?—Yes, they come in practically to time; you can calculate upon them almost as you can on a train.

427. What is the reason that in some weeks the Australian mail is delivered on Saturday, sometimes on Friday, and sometimes on a Monday?—If it is the P. and O. mail it is probably because sometimes the P. and O. boats are in advance of their contract time.

428. Is that frequent—that boats are in advance of the contract time?—It is fairly frequent, I think.

429. As a matter of fact the departure of mails from Australia by the different lines is not synchronous, is it; the boats do not start on the same day from Australia, but the P. and O. start on one day of the week, and the Orient on another?—What I mean is that you tie down these boats to run the distance within a certain specified time, and they do it. If you had no contract the companies could alter their itinerary; they could take off their fastest boats, and they would do it. For instance, take another service, across the Atlantic. For part of the year you would never have the fastest boats running at all. It is the same with the Royal Mail. When you came to put your mails on board you might be told, "We intended to start to-day, but we have not got our cargo in yet," and we shall not be able to start till to-morrow morning." I doubt if the business world would tolerate it.

430. Speaking about routes, regularity and speed, I suppose, would be the main things, as you have put the case here, in the way of argument for any particular route?—Regularity and speed, and certain other considerations of which I read you out a catalogue.

431. Taking those desiderata into consideration, has the Post Office ever looked into the possibilities of a mail route across Siberia and getting to Australia that way for the Australian mails?—No, the Siberian route does very well for stuff going as far south as Shanghai, but I do not know that we ever considered it for anything farther.

432. But the Post Office use the Trans-Siberian route for Chinese and Japanese mails?—Yes, the development of that route, of course, may be great in future.

433. Does the service prove costly on that route?—It is a new service to some extent, and their lines are not what they will be in the future; in some places they have still got single lines and their rolling stock will also be improved in the future.

434. There is rapid duplication going on upon that line is there not?—So I understand.

435. What is the time of delivery of mails from London to, say, Japan—Yokohama?—Yokohama by Siberia, 18 days; *via* Vancouver, 26 days; and *via* Suez, 36 days.

436. Eighteen days to Yokohama from London?—Yes.

437. How does the American Post Office carry the bulk of its mails?—So much per voyage in some cases, I think.

438. The system of subsidising lines is hardly known there, is it?—No, they are not quite in the same position as we are. The eastward-going American mail is concentrated at New York; the westward mails of this country go from Glasgow, from Liverpool, and from Southampton, and it is easier for America, supposing she wished to do it, to take the fastest ship on the berth than it would be for us, as they have them all at one place. We broke down badly when we tried to work the service on a statutory payment in the seventies and eighties.

439. The American inward service is done entirely

on the payment system, is it not?—Except in the case of the Cunard.

440. Is there any great complaint over the American inward service about irregularity?—No, not that I know.

441. Then they manage to give a satisfactory service on the payment system?—Yes.

442. The West Indian mail is carried by Elders and Fyffes' boats is it not?—Part of it.

443. Elders and Fyffes' boats are really an American-controlled institution, are they not?—I do not know how they are controlled.

444. (*Sir Rider Haggard.*) Has the alternative of ocean transit throughout ever really been seriously considered?—I cannot say it has for carrying letters.

445. Speaking generally it would seem to present some advantages, would it not; for instance, is it not an advantage that the mails of this country should pass over the high seas and not over foreign countries?—I cannot see very much advantage.

446. Is not a state of affairs conceivable when it would not be altogether desirable to send your mails through foreign countries?—Government traffic is not carried by ordinary mails.

447. Letters have a bodily presence on foreign territory, have they not?—Yes.

448. Is it not conceivable that that might not be desirable?—I can imagine it under certain circumstances.

449. Is it not extremely expensive?—It is expensive.

450. Would not the same amount of money which is involved in sending those letters across several foreign countries to a foreign port provide a service *via* the Cape in much the same time that is by quickening up the boat a little?—I should doubt it.

451. As a matter of fact would not the increase of a knot an hour or so equalise the whole thing?—No, I do not think it would; at present your boats running to the Cape—

452. I am not talking of the existing boats, but I am supposing that a fleet of boats of a different character is built?—You would have to run at an average speed of over 16 knots an hour, and at present the boats going round the Cape are doing an average speed of 13.

453. I know, but supposing there were ships of the same average speed as on the other route?—I think it would form a subject for consideration then.

454. I want to put what I have in my own mind to you as an expert: Again, would not the fact that there would be only one stoppage at the Cape have an important bearing in the relative advantages of these routes?—You would have an uninterrupted course for the remainder of the time.

455. One call at the Cape, is it not?—Yes, and perhaps one at Natal.

456. Not necessarily?—Not necessarily, leaving out the coaling.

457. Because the mails could be taken by the railways to Natal?—Yes.

458. Is not that an enormous advantage when it is borne in mind that the Cape is a British possession?—You are not providing for so much mail matter by that route.

459. You would have all the African mail matter, would you not?—You would have the African mail matter, but you would not have the Indian and you would not have the foreign stuff which boats command on the P. and O. route the other way.

460. There would be in the beginning at any rate some diminution in the amount of mails carried?—That is what I meant.

461. I understand that, but what I want to put to you is this: looking at the great advantage of having a route dominated entirely by the Imperial power calling at an Imperial port, and going straight across the sea to the Imperial possessions beyond the seas, I want to put it to you whether those advantages do not counter-balance the advantage of, perhaps, a little extra quickness *via* foreign countries and *via* the narrow Suez Canal?—No doubt there is force in what you say.

462. I do not think I need carry that any further, and I have only one further question. I think you mentioned that the letters cost 300*l.* a ton?—Yes.

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462. Does that mean that for each individual ton the country pays 300l.?—Yes.

463. That is an enormous amount, is it not, compared to what is paid for any other articles?—For freight, yes, but you do not treat your letters as you treat ordinary freight. The comparison is not a fair one. You are not content to have your mail treated as if it were freight, valuable or otherwise.

465. That is very dear, is it not?—It is dear.

466. With reference to what the Chairman put to you, you talk of getting tenders for mails, but practically you are in the hands of a monopoly, are you not?—We are dealing with a very restricted competition.

467. I will call it a restricted competition.—But I do not know that the resources of civilisation are exhausted if that competition fails us.

468. Say there are three lines which could tender, does that prevent the three lines making a little agreement among themselves and saying, "We will none of us quote a lower price than the other"?—Then we should be in difficulties, but I think we should find a way out.

469. Is it a case of faith or hope?—It is anticipation based on experience.

470. (*Mr. Bowring.*) Just one or two questions. Would it not seem to you that if the Canal dues could be saved and that money put into coals, that is extra speed, something might be gained by going round the Cape?—The Canal dues do not affect us directly for the purposes of this discussion. The P. and O. Company offer their services for so much, and no doubt they take the Canal dues into consideration just as they take all the other circumstances.

471. That is a big consideration, is it not, on that route—or one of the big considerations?—Yes.

472. Possibly several thousands of pounds a trip?—Yes.

473. In going round by the Cape, of course these dues would be saved?—You would save dues. You would have to increase the speed of your ship.

474. Would not that saving of the Canal dues go a long way towards increasing the speed of the ships?—I hesitate to prophesy. At the higher rates of speed an increase of a knot raises the cost of working your ship quite out of proportion to the effect of an increase of a knot at the lower rates of speed.

475. True, but it would be helpful any way?—It would be helpful.

476. By the present method through Suez, do you derive quite a revenue from the foreign countries—from France and Italy?—Yes.

477. Do they send many of their letters by the British subsidised boats?—Yes.

478. How do they pay?—They pay the Postal Union rates.

479. And it works out at about 224l. a ton?—I had some figures, but I have not brought them with me. I can say, however, that the foreign countries' contribution is going up.

480. Does the amount of the postage in or about cover the cost of transit by steamer, that is to say, does a penny cover the cost of transporting the letter?—To Australia? By no means or anything like. The answer to a statement which begins by saying, "A letter can be sent to Sydney for a penny; why, therefore, should not you do something else comparable with inland postage," is that a letter cannot be sent to Sydney for a penny; we charge a penny and pay out more.

481. About how much more?—The loss on the penny postage is running up to over 200,000l. a year, and if you add the penny postage to the United States of America, a good deal more.

482. Have you ever worked out how much that comes to for each letter?—I have not got the figure.

483. You could not tell me, if a penny does not pay, what would pay?—I will give you a memorandum upon it if you like.\*

\* The witness subsequently supplied the following information:—"We estimate that the cost of sending a letter to Australia and that of dealing with the reply in this country amounts to over 2l. per ounce rate. The lowest practical amount in British currency which would be remunerative is 2s. 6d. or 2½l."

484. Thank you; it would be interesting to know if the penny does not pay, what would be the right amount?—Are you thinking of any particular place, Australia for instance?

485. I was thinking of Australia at the moment.—Very good.

486. It has been contended that on account of the Suez Canal draught, its width and one thing and another you cannot send larger boats that way, and to get speed you must have size. That argument does not seem to be borne out altogether by the Atlantic experience, does it?—I do not quite catch the point.

487. I think it has been contended that one reason why you have not got a greater speed on the Australian and New Zealand route is because the Suez Canal cannot put through larger boats than are at present engaged in it, say, 12,000 tons?—Yes.

488. And because you cannot make your boats larger you cannot increase the speed?—Yes.

489. That does not seem to be borne out by the Atlantic experience?—The Atlantic boats are very much larger than 12,000 tons.

490. That is true, but in 1890 you appear to have had Atlantic boats of 8,000 tons running regularly at 20 knots?—I cannot comment upon it, because I do not remember; I take it from you, but I have no doubt that the speed of the vessels on the P. and O. line could be increased, but I do not know.

491. It seems curious that on the Atlantic so far back as 1889 anyway the mails were carried across the Atlantic at 20 knots, and to-day they are only carried to Australia at 15 knots?—The Atlantic service with the racing boats is a passenger service with very little cargo. The P. and O. is a cargo service as well as a passenger service. The Olympic, at present the biggest of the Transatlantic boats, carries, perhaps, about 500 tons of cargo that is not passengers' luggage.

492. That is perfectly true, but in speeding up the boats to the East the chances are that the passenger trade would be worked up in the same way as the Atlantic trade has been worked up, and that there would not be the necessity possibly when that was done to carry anything more than passengers and mails and very valuable cargo. It seems reasonable that the same influence would have the same end.—May I ask what it is you suggest in that connection in regard to the mail contract?

493. What is running in my mind is this, that it seems to me to be more or less outrageous that mails and passengers should be carried to Australia in these modern days at 15 knots when they can go at 20 knots across the Atlantic?—Is there not something in this—in America there is an Anglo-Saxon population of 100,000,000 within comparatively easy reach of these islands, and you have an enormous passenger traffic, and people who can and will pay any amount of money, and pay for speed. In Australia there is a similar population, not of 100,000,000, but of 7 or 8 millions, and there is not the same pressure on the companies to supply fast boats.

494. (*Sir Rider Haggard.*) It is 5½ millions excluding New Zealand, I think?—I thought it was 7,000,000.

495. (*Mr. Bowring.*) It is 5½ millions.—That makes a greater difference.

496. But there is such a difference in the speed; Canada can get a boat running at 18 or 19 knots and Australia gets them running hardly 15.—But the distance is enormously longer.

497. And they only get to 15 knots at the enormous outlay of 360,000l. a year.—If you are talking of 19-knot Canadian boats you must talk of 18½-knot P. and O. boats; you are talking in the one case of the maximum speed and in the other the average effective speed in running. No captain would run his boat at its maximum speed the whole way from here to Australia, or he would have to dry dock her when he got her to Australia.

498. I do not think that follows.—In any case the Post Office could not make their bargain with him. If 18½ knots were the maximum speed of the boat, we could not make a bargain with him that he was to take the mails at 18½ knots, because he would have no margin.

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499. Again, out to Australia there are unsubsidised boats at about 13 to 14 knots?—13 knots the best of them.

500. For the extra two knots they pay this very large sum of 360,000*l.* a year.—You have not got your 13-knot boats all in one company, and the additional two knots is a considerable addition—two knots on 13.

501. I wonder what would happen—have you any idea—if you could add the saving of the Canal dues to that 360,000*l.* a year and offer it to some company in the way of a subsidy?—I do not think the Post Office would stand back if it got any reasonable offer from anybody to put on a service cheaper and better than is done now. We should not pass the thing without consideration.

502. It has never been brought to the notice of the Post Office officials, I suppose?—No, we have not had an offer to run round the Cape.

503. In fact the Cape has never been considered?—Not for letters.

504. (*Mr. Garnett.*) I think your contract with the Post Office contractors—the P. and O. Company—provides that within certain limits that company is responsible for losses?—Yes.

505. In practice are there many claims?—No; I have some figures here. From 1906 to 1910, losses due to shipwreck, *nil*; losses due to other causes, *nil*; 1911, losses due to shipwreck, *nil*; losses due to other causes, 8*l.*; 1912, losses due to shipwreck, *nil*; losses due to other causes, 1*l.*; 1913, losses due to shipwreck, 2,975*l.*; losses due to other causes, 1*l.* The 2,975*l.* was wholly in respect of the mails lost in the “*Oceana*.”

506. Are there any claims against the company at all for damage through transhipment of mails?—The losses due to other causes are mainly due to damage in transhipment.

507. What you have read out includes all payments?—Yes.

508. So that the amount of the subsidy is not materially increased by any compensation the company has to pay on these heads?—It would not form an important item.

509. Have you any figures showing any comparison between the P. and O. and the Union-Castle Company? Does their contract involve the same liabilities?—The present South African one does, but it has only been on since 1912, so that we cannot form any comparison yet. The previous contract did not contain such a clause.

510. Supposing the insurance clause did not exist, what would be the liability of the shipping companies?—There is rather a difficult point of law there on which the courts have not authoritatively decided. The Postmaster-General is advised that where the mails were carried under special contract under statute the shipping company would not be strictly liable as common carriers, but they would be held responsible for loss or damage caused by their negligence and that of their servants subject to the statutory limitation of liability under the Merchant Shipping Act of 1894 (that is a consolidating Act, I think) to 8*l.* per ton for each ton of the ship's registered tonnage in respect of loss or damage to goods. The amount which would be recovered in that way would be insignificant compared to what we do recover now.

511. That would be your remedy?—That is the remedy so far as we know it, but there is no very definite decision made by the courts upon that point yet.

512. (*Mr. Tatlow.*) The contract with the P. and O. will terminate in 1916?—Yes.

513. And I presume that if the mails continued to be carried by that route, under the new contract an accession of speed is contemplated?—I can hardly say on what lines we shall negotiate yet; we have scarcely sketched it out. Of course an acceleration of speed would be desirable if we could get it on reasonable terms.

514. What acceleration would be possible with their present fleet of steamers the maximum of which is put down at 18 knots?—I cannot say that.

515. Whatever it was the increased speed would mean increased subsidy, would it not?—Normally, increased speed is a thing which you pay for, but many conditions come in in negotiating a contract. If there

are other advantages to be given we might get the increased speed for nothing.

516. Are mail contracts such as these advertised?—Yes, they are put up for tender.

517. Has the “*All-Red*” route *via* Canada and Vancouver been seriously considered in place of the Suez route for Australia?—We use it now in a way, but that would be an alternative route; that would not be a substitute for it, I think.

518. But as a mail route? Was not it proposed some years ago to the Post Office that there should be quick steamers placed on the Pacific and the Atlantic, and was there not a definite proposal that the route should be through Ireland?—As an ordinary matter of Post Office dealing we should send the mails by the most advantageous way.

519. Is not that route capable of being made the quickest route seeing the large amount of land transit as against sea?—That is in its favour.

520. Largely in its favour for mails?—Largely in favour. You might have a much larger proportion of land transit for the Eastern route at some time, not in the near future perhaps, when the Bagdad railway is working.

521. (*Mr. Lorimer.*) With respect to Australian mails, why is it that you allow a margin of from 3 to 3½ knots per hour between the contract sea-speed and the full speed of the ship? You give us, with regard to the whole of the P. and O. Company's steamers, their speed at 18½ knots and their contract sea-speed is 15·16?—They cannot use the maximum speed over the whole of the route; it would not be possible. They run at more than 15·16 knots in certain portions of the route, between here and Colombo the average speed is about 16·1; then, besides, there must be a margin to meet unfavourable weather—all kinds of sea contingencies.

522. You do allow for that; you give them an extra day in the monsoon weather?—We give them an extra day for very special conditions, the regular monsoon, but there are other conditions which he cannot so easily foresee. He knows he is to meet the monsoon.

523. You see we have all had recent experience of Australian mailships and we never under any circumstances approached 18½ knots even if the ships had to make up time for the prolonged and tiresome delay at Colombo and Aden. I do not think under any circumstances did any of these boats ever exceed 18 knots?—That is very probable.

524. Now I can quite understand that it would involve a very much heavier load of coal to be carried, say, between Colombo and Fremantle, than they take just now if they were to exceed 15 knots; but still, the possibility of making up some of the time that is lost in waiting at Colombo and Aden appears to be disregarded?—When the P. and O. tendered for the contract they would take into consideration what sea speed would be necessary and what margin of speed would be necessary to enable them to do the journey within the specified time.

525. But when you have got ships which profess to run 18½ knots it seems odd that you should give them no less time than you give to slower ones?—I do not know that they profess to run 18½ knots the whole way; they profess that that is their maximum speed, and the contract binds them to do the distance within a certain time and they do it. The figures of their speed do not matter very much.

526. We had more than once to slow down in order not to be in too soon?—Yes, the P. and O. boats run better than their contract very frequently.

527. But they slowed down, and in coming home we went into Malta and that made no difference. Is it not possible (I suppose you have discussed it with the P. and O. Company) to obviate that dreadful delay at Colombo?—We might think of that when the new contract is entered into.

528. I have only one other question: has the Post Office arranged for the carriage of over-sea mails in any part of the world by steamships burning oil?—No, not as a special condition.

529. Do you not think you have them carried by

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oil vessels anywhere?—Not by any that I can think of now.

530. You would probably get better speed in that way over a long distance?—I do not know that we should concern ourselves about the means by which the ship was driven as long as we had the speed we were asking for.

531. But if you saw your way to reduce that time by three or four days, would you not avail yourselves of the opportunity?—Certainly, we want the speed to be as great as possible.

532. I point out that there does seem to ordinary passengers like ourselves some means of reducing time by a better arrangement of the connections at Colombo, and also you might consider whether you cannot get better speed by running oil-burning ships.—I see.

533. (*Sir Alfred Bateman.*) I want to ask you a question about clause 33 of the P. and O. contract under which the company are bound not to give any undue preference in their general carrying business to the disadvantage of British shipowners; how do you enforce that?—We have no way of enforcing it except that if a complaint was made and justified to us and we went to the P. and O. Company and asked them to alter their procedure and they refused, we could treat that as a breach of the contract justifying the Postmaster-General in determining the contract at once.

534. But you do not take any steps yourselves to see that that is carried out?—No.

535. Supposing there is a lower rate of freight, say, for German goods which come to London and are transhipped there—cases we heard of in New Zealand?—We do not inspect with a view to seeing whether that does happen or not; we trust to complaints being made.

536. Have you had complaints made?—No.

537. Do you think the commercial public would be aware that the complaints could be made to you?—The commercial public I presume are aware that there is a P. and O. contract and that that contains a good many other things than Post Office clauses; it contains a Board of Trade clause and it contains an Admiralty clause.

538. Do you happen to know whether there is a similar clause in the contract of the New Zealand Shipping Company and Shaw, Savill, and Albion Company?—No, the stuff is carried by those lines under an arrangement come to by means of letters, and there is no contract.

539. It would not be possible to put in such a clause?—Yes, if the traffic became sufficiently important to make a contract with them I suppose the clause would be introduced.

540. I suppose the complaint would come before you through the Board of Trade?—Very likely; if the complaint were made to the Board of Trade and the Board of Trade considered the complaint justified they might remind us that the matter fell under such and such a clause in the P. and O. contract.

541. I notice you speak of negotiation: you say you consult the Admiralty, the Board of Trade, and so on?—Yes.

542. Do you consult them frequently?—Yes.

543. At different stages of the negotiations?—Yes.

544. They are treated almost as partners whom you have to satisfy more or less?—Yes. I imagine we are the principal partners, if there is a question of who has the most interest in the contract, but we consult them at every stage, and if either department wants anything, we do it.

545. So that, although they are not parties to the contract, they know what is going on at every stage?—Yes.

546. For that reason, you do not see any advantage in having the committee that has been proposed?—I think it would be disadvantageous; if you have a committee of that sort where there is one very predominant interest, and otherwise only slight interests, you are wasting a number of people's time by calling

them all together constantly to consider things in which they are not directly concerned, always provided that the department managing the affair takes particular care to see that the interests of the other partners are not neglected, and I think we can claim that.

547. I think you said that the preference clause was put in in accordance with the suggestions of the Board of Trade?—Yes.

548. But they do not see that it is enforced; they wait for complaint?—I do not know what action they take, but I presume they wait for complaint. We take no action.

549. In the new contract will there be some difference owing to the new Shipping Act in Australia—the new legislation which has to do, you know, with wages and also with colour in the question of seamen?—I cannot tell; we shall put out our tenders for a certain service to be performed and the shipping companies will tender, if they see fit, certain terms on which they will perform that service. If new Australian legislation is making things more difficult for them I think it will appear in the demands for money.

550. You are afraid you would have to foot the bill?—That or something like it.

551. It has not come to your knowledge yet, the effect of this legislation?—No, because we are not yet really in negotiation for the contract.

552. It has been assented to I understand?—So I learned this morning.

553. In some ways it will add to the cost of working that service will it not?—Yes, it is likely to add to the cost of working the service and likely to lead to a loss of profit to the company.

554. If there is an increase in what they will carry your mails for it would be an additional reason for your taking into consideration this Cape route, would it not?—I imagine that the Cape lines will also fall under the same law, will they not?

555. You might have companies which did not use coloured labour?—Yes.

556. It is the P. and O. Company which specially falls under this legislation?—Yes, under the coloured labour clause. The Orient agreed not to use coloured labour and the price of the contract went up.

557. There is also the wage question which would come in?—Yes, two or three things come in—the coloured labour, the wages question, and the coasting law. They all tend to send up the price of the contract. Any additional difficulty put before the shipping company will have to be paid for in some form or another by the Government.

558. (*Sir Rider Haggard.*) With reference to the former questions I put, is it not a fact that the White Star Line at the present moment does the passage between Cape Town and Australia at a greater speed than the mail steamers do between Colombo and Australia?—I have the figures and I think they are right. The speed of the White Star Line I have down here as 13½ knots for their fastest boat, 40 days to Adelaide from Liverpool.

559. Then it is not the fact that it does the passage at a quicker rate between the Cape and Australia than is done by the mail steamers between Colombo and Australia?—No, on my interpretation of these figures the 13½ knots put down here is their maximum speed, and would probably not be represented in actual running by more than 12 knots, but it is easily calculated by putting the distance against the time taken. There is one example—the Aberdeen Line ships' speed is put down at 15 knots. The voyage from London to Cape Town is performed by their ships in 19½ days. The distance according to their own showing is 6,181 miles, and their actual sea speed is about 13 knots.

560. Then your answer to my previous question is that what I have been informed was the case is not so?—I think not.

561. The question has been raised about the coal, the difficulty of coaling for the long sea stretch between the Cape and Australia; would not that be got over by a very little increase of draught in the



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steamers?—That is rather a question for a nautical expert than myself.

562. It is a question you cannot answer?—I cannot answer that satisfactorily.

563. There is one more question I would like to put in this way: in view of the extreme importance of all this matter of mail communications, could not any of the difficulties which have been suggested as against the Cape route be overcome if the steamers used are State-owned?—That raises a very large question indeed. There seems to be no more reason for starting State-owned mail boats round the Cape than

on the very important service between England and North America.

564. But, as a matter of fact, those difficulties as regards the Cape route are in no way insuperable, are they, as regards the extra 1,000 miles, or whatever it may be, to be done in the same time?—That is not the right term, I think; it is not a question of the difficulties being insuperable, it is a question of the advantages on this side or that—a question of sheer expediency.

565. I admit that, but there are points of expediency in favour of the Cape route?—Possibly.

The Right Honourable Sir HENRY PRIMROSE, K.C.B., C.S.I., Chairman of the Pacific Cable Board, called and examined.

566. (*Chairman.*) You have been good enough to send us a note of evidence which you are prepared to give, and perhaps the most convenient form would be for me to ask you formal questions to enable you to develop your views on the subject. I understand you are the Chairman of the Pacific Cable Board?—Yes, I am.

567. And you have been chairman since 1907?—Yes, August 1907 I think was the date on which I began.

568. I understand you desire to combat the contention that reduction of rates of existing tariffs can be

made without loss of revenue?—Yes. You were kind enough to let me see some evidence which was given in Australia and New Zealand, I think, and elsewhere. I noticed that a good many people are under the impression that a reduction on the rates of cabling is immediately followed by an increase of traffic and that the increase of traffic before very long will make up for any loss in the reduction of rates. All experience I have is against that. I have brought here a table which I would like each member of the Commission to have (*handing in the same*).

*Number of Ordinary Words exchanged between Australasia on the one side and Europe and America on the other. "Pacific" and "Eastern."*

Year.	Europe.			America.			Europe and America.			Remarks.
	Pacific.	Eastern.	Total.	Pacific.	Eastern.	Total.	Pacific.	Eastern.	Total.	
1886	—	370,258	370,258	—	18,370	18,370	—	388,628	388,628	1st July, 9s. 4d. (reduced from 10s. 8d.).
1887	—	434,681	434,681	—	26,597	26,597	—	461,278	461,278	
1888	—	493,922	493,922	—	30,163	30,163	—	524,085	524,085	
1889	—	498,723	498,723	—	34,928	34,928	—	533,651	533,651	
1890	—	504,638	504,638	—	36,436	36,436	—	541,074	541,074	
1891	—	724,989	724,989	—	55,388	55,388	—	780,377	780,377	1st May, 4s. S. and W. Australia. Message fund started.
1892	—	868,357	868,357	—	54,685	54,685	—	923,042	923,042	
1893	—	1,015,120	1,015,120	—	46,219	46,219	—	1,061,339	1,061,339	1st January, 4s. 9d. S. and W. Australia.
1894	—	959,371	959,371	—	49,214	49,214	—	1,008,585	1,008,585	
1895	—	1,575,033	1,575,033	—	61,014	61,014	—	1,636,047	1,636,047	
1896	—	1,987,173	1,987,173	—	77,771	77,771	—	2,064,944	2,064,944	
1897	—	1,712,188	1,712,188	—	87,692	87,692	—	1,829,880	1,829,880	
1898	—	1,558,894	1,558,894	—	107,004	107,004	—	1,665,898	1,665,898	
1899	—	1,795,686	1,795,686	—	119,976	119,976	—	1,915,662	1,915,662	
1900	—	1,737,491	1,737,491	—	129,607	129,607	—	1,867,098	1,867,098	1st May, 4s. All Colonies.
1901	—	1,764,991	1,764,991	—	146,967	146,967	—	1,911,958	1,911,958	1st January, 3s. 6d. All Colonies. Cocos route opened, November.
1902	19,843	1,779,014	1,798,857	11,051	184,327	195,378	33,894	1,963,341	1,997,235	1st January, 3s. All Colonies. Pacific cable opened, December 8th.
1903	462,016	1,522,211	1,984,227	252,911	15,533	268,444	714,927	1,537,744	2,252,671	
1904	500,169	1,620,903	2,121,072	272,591	7,545	280,136	773,060	1,628,448	2,401,508	
1905	516,165	1,681,826	2,197,991	297,945	8,021	305,966	814,110	1,689,847	2,503,957	
1906	623,941	1,805,863	2,429,804	345,912	7,977	353,889	969,883	1,812,940	2,782,823	
1907	695,346	1,846,494	2,541,840	347,911	8,375	356,286	1,013,257	1,854,569	2,897,826	
1908	665,611	1,733,737	2,399,348	362,163	4,926	367,089	1,028,074	1,737,763	2,765,837	
1909	725,767	1,758,214	2,484,981	347,895	4,234	352,129	1,073,662	1,762,448	2,836,110	
1910	773,031	1,988,604	2,761,635	392,480	4,449	396,929	1,165,511	1,993,053	3,158,564	
1911	862,881	2,075,935	2,938,816	451,943	6,747	458,690	1,314,824	2,082,682	3,397,506	Increase over 1902 — Europe, 63 per cent.; America, 131 per cent.
1912	830,072	2,068,132	2,898,204	518,199	9,869	528,068	1,348,274	2,078,001	3,426,272	
1913	273,234	165,792	439,026	73,261	1,029	74,290	346,495	166,821	513,316	Deferred introduced, 1st January.

These are some figures with reference to the rates charged to Australia both before and since the Pacific cable was opened. I would like the Commission to look at the year 1896, which was before our cable opened. That is the year of the maximum traffic under the 4s. 9d. rate. I might just mention perhaps as you will

see in the remarks that in 1890 the rate was reduced to 4s. and was put up again two years later to 4s. 9d. The reason of that was that when it was reduced to 4s. the Australian Governments (that was before Federation) undertook to make up to the Eastern Company a certain proportion of the loss. The proportion they

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had to make up they found such a heavy tax upon them that they themselves asked the Company, I believe, to raise the tariff again to 4s. 9d. a word, and that prevailed, as you will see, until the year 1899, when it came down to 4s., and next year it came down to 3s. 6d., and next year to 3s. Those reductions, of course, were in view of the probable opening of the Pacific cable. Now let us take the period during which the rate was at 4s. 9d. and you will find that in the year 1896 the traffic to Europe (which I think we have to keep separate from the traffic to America, because the opening of the Pacific cable really created the American traffic you may say, and therefore in order to compare like with like we ought to confine our attention to the European traffic, at any rate in the first instance) was nearly two million words at the full rate. If you will go on to the year 1911, which was the last year before we had introduced the deferred messages, which complicates matters, and again in order to compare like with like—you will see that we had just under a total of 3,000,000, combining our traffic with that of the Eastern. That, if you work it out, practically amounts to 48 per cent.—to be quite accurate it is 47·89 per cent.—increase, call it 48 per cent. Now what ought the increase of traffic to have been in order to compensate for the reduction of rate from 4s. 9d. to 3s. ? In order really to compensate, the increase ought to have been a little over 58 per cent. Therefore, even in 15 years you see the amount of traffic has not increased sufficiently to make up the reduction in the rate.

569. You are taking a peak year with an average year; your 1896 year is a peak year?—Yes, but I think you ought to take the peak year because that represents what the pressure of the rate could do. I think you must take the peak year; you are wanting to know what is the force of the pressure of the 4s. 9d. rate. Therefore, I think you must take the peak year and not the average. Of course many other things come into consideration. It is not to be supposed that the 3,000,000, or thereabouts, words which were sent in the year 1911 represent no more than the 2,000,000 words which were sent in 1896, because the improvement of codes has no doubt enabled a great deal more matter to be packed into those 3,000,000 words than was packed into the 2,000,000 words of 1896.

570. Can you estimate how much that amounts to?—No, I do not think that is possible.

571. (*Mr. Campbell.*) Is not that year 1896 the year in which the traffic was forced up by the Western Australian mining boom?—Very likely; no doubt the traffic rises and falls according to the trade.

572. Still, it is hardly a year you could argue a question of this sort from?—I think so, because we are looking at one element in the case, which is the rate. If you find that in a given year the rate could not operate to depress the traffic beyond a certain point that, I think, is your real test of what the pressure that the rate can exercise is, rather than the average. However, that is one of my instances.

573. (*Chairman.*) Will you please go on to your next point?—I am now wanting to keep to what I might call the evidence from experience. The Atlantic companies (this I give on the authority of a letter from Mr. Goddard, who is the European representative of the Western Union, and who kindly supplied me with facts picked out of the published reports of the Anglo-American Company which they have absorbed) in or about the year 1884 reduced the rate from 2s. to 1s. 8d. There had been changes in the rates before, but I will not go further back than that. In the report for the half-year ending 31st December 1885 they said that the loss caused by reduction of rate from 2s. to 1s. 8d. (that would exactly correspond with the reduction in our rate from 3s. to 2s. 6d.) estimated in the report of the directors, dated 29th January 1885, at 170,000l. a year has amounted to more than that sum, as it has not been followed by any augmentation of the traffic. That was in 1885. Now then a year later, in view of the competition of the Commercial

Cable Company, which was opened, I think, in 1884, they suddenly reduced their rate from 1s. 8d. to 6d. a word. That was a reduction of 70 per cent. and this is what they say about the effect of that: "a considerable augmentation of the traffic, much larger than was anticipated as a first result amounting to 116 per cent., and although the total receipts have greatly decreased the company is earning sufficient to pay its working expenses plus a sum to the credit of the renewal fund." For the next few years reference is made to the 6d. tariff, which lasted about three years, I think, and which apparently continued to produce an augmentation of traffic. In the report for December 1887, the last year they had the 6d. rate, they stated that the traffic passing over the cables of the joint companies showed an increase of 12 per cent. over the same period of 1886 (both those years there was a 6d. rate) and an increase of 126 per cent. over the same period in 1885 when the 1s. 8d. rate was in force; but they go on to say that the traffic was yet unremunerative. That 70 per cent. reduction in the rate was a very enormous reduction, and in order to compensate for such a reduction as 70 per cent., the increase of traffic instead of being as it was, 126 per cent., ought to have been as much as 235 per cent. You see you reduced your rate to rather less than one third. Therefore, in order to compensate for that you ought to have got an increase of traffic rather more than three times as much so as to balance. Having got to that point they got tired of the 6d. rate and went back in 1888 to the 1s. rate, which has been maintained ever since. I think both the experience of the Atlantic companies and the experience of the Eastern does show that while, of course, the higher the rate and the greater the reduction, the more the effect will be upon the traffic, when you have got down to moderate rates, if you only make a comparatively small percentage of reduction it really hardly affects the traffic at all. That, I think, for reasons which I may give later, is exactly what one would expect, but before I go away from that point I would like to go to our experience in the reduction of the press rate, because that is a different class of traffic altogether, which took place in the year 1909 as the result of the Imperial Press Conference, which was held in London. This (*handing in a table, for which see page 31*) shows exactly the number of words carried by the Pacific and the Eastern respectively.

The reduction that was made in 1909 was from 1s. a word to 9d. a word. Now if you take the year before the reduction was made, 1907-8, you see that there was a total of 360,000 odd words costing to the press about 18,000l. At that conference a very great deal was made of the extreme importance of enabling the press to supply a larger amount of news, and there was something very like an undertaking given that if such a reduction was made the press would not save any money by it, but would use the concession in price for the purpose of increasing their supply of news. But you find that whereas in 1907-8 the press were spending 18,000l. on their cables, in the year 1909-10, which is the year after, they only spent 14,000l.; in other words they really economised the whole of the money. After that we go up very much; the deferred press brings it up for one thing, and there again I do not for a moment suggest that the rate is the only consideration which affects the total amount of traffic, because there are many other things, but still it is significant that the immediate effect of the reduction from 1s. to 9d. was practically nil from the point of view of increasing the supply of news.

574. However, the total effect of the reductions after a certain number of years has been to increase the number of words sent from 360,000 to 627,000?—Yes, but I think there are many other considerations. I cannot speak with knowledge, but a great deal has happened. For instance, new papers have been started in Australia. A new service altogether has been started by the "Sun" as to which you have had some evidence. I ought to say this does not include the amount of traffic supplied by a company which was started, I think, in the year 1910, just after the conference, called the "Independent Cable Service," which collects



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*Australasian Press Traffic.*

The following figures show the effect on the volume of traffic caused through the reduction of rates between the United Kingdom and Australasia :—

—				Pacific.	Eastern.	Total.	Cost to Press.
							£
*1901-2	-	-	-	—	289,626	289,626	14,481
1902-3	-	-	-	1,612	244,159	245,771	12,289
1903-4	-	-	-	37,146	265,806	302,952	15,148
1904-5	-	-	-	18,973	237,100	256,073	12,804
1905-6	-	-	-	13,034	254,481	267,515	13,376
1906-7	-	-	-	16,744	241,833	258,577	12,929
1907-8	-	-	-	84,295	276,378	360,673	18,039
+1908-9	-	-	-	70,167	249,470	319,637	15,983
1909-10	-	-	-	94,021	243,861	337,882	14,023
1910-11	-	-	-	152,665	Deferred press.†	382,862	14,357
1911-12	-	-	-	170,519	17,363	426,629	15,673
1912-13	-	-	-	122,841	106,849	397,644	19,523
					177	627,511	

\* Board opened on December 7th, 1902.

† Rate reduced from 1s. to 9d. per word on August 1st, 1909, and to 7½d. on September 26th, 1912.

‡ Introduced on December 6th, 1911.

				£			
Total press traffic the year before 1st reduction	-	-	-	319,637 words costing	15,982		
.. .. . last year	-	-	-	627,511	19,523		
Increase	-	-	-	96 per cent.	22 per cent.		

its news in Canada, and telegraphs it from Canada to Australia, thereby, of course, saving a great deal because they get a very cheap rate; but that service was given a subsidy. Altogether they have received 6,000l. for three years, and that, I suppose, is just about coming to an end. Any way, the amount they paid to us was very little more than the amount of the 6,000l. they received from the Government.

575. But would not you agree that the net effect of your reduction as shown in these figures was satisfactory?—I read those figures as indicating that apart from other things the effect of the reduction was nil. I take a clear year, 1909-10, during which the rate was 9d., and a clear year during which it was 1s., namely 1907-8, and during that time, of course, the other influences would have less time to operate; there would be less change in the two years, and yet what you find is that not a bit more news was sent; the papers benefited to the extent of 4,000l., but that was not our object, and we should not have done it for that purpose.

576. However, when you come to 1912-13 you have the number of words nearly doubled?—Yes.

577. In fact more than doubled when you compare 1912-13 with any triennial average of the earlier period?—Yes, but I think one would say that was due less to reduced rate than to the other influences which operate.

578. Have you any further figures to bring forward in connection with your contention, or would you pass to the theoretical considerations?—I think those are all the figures I can offer. Of course, as I say, a great deal depends. If you have got a rate which is really oppressive, and if you have reduced it, then undoubtedly you would have a considerable increase in traffic; but our present rate is certainly not oppressive to the business people who send us by far the larger proportion of traffic. On that I have a table I should like to put in (*handing in the same*) showing what proportion of our traffic comes from business telegrams, and what proportion from private telegrams.

*Statement showing Four Weeks (1912-13) Ordinary and Deferred Ordinary International Traffic Classified Private and Business.*

	Ordinary.				Deferred Ordinary.			
			Percentage.				Percentage.	
	Private.	Business.	Private.	Business.	Private.	Business.	Private.	Business.
Outward	3,155	40,253	7·27	92·73	8,472	7,797	52·07	47·93
Homeward	3,455	55,955	5·82	94·18	8,016	9,389	46·06	53·94
	6,610	96,208	6·43	93·57	16,488	17,186	48·96	51·04

579. That is very interesting. I should say that it would be an enormous labour to analyse the traffic over any long period, but the way I did it was this: I took four weeks in the year 1912-13, not consecutive weeks, but I picked out, or rather I had a normal week selected in each of the four quarters, and we analysed the whole of the traffic during those weeks. This table gives you quite shortly the results. I have them in detail for the four weeks, but I thought it more convenient for the Commission merely to have this simple

table, because there you see the result at a glance. You see at a glance that out of the ordinary, about 6½ per cent. is private and 93½ per cent. is business. Then, of course, when you turn to the deferred ordinary, it is different: it is very nearly half and half.

580. Can you say what it would be for the week-end? The week-end has only been going since the beginning of this year, and I think statistics which are founded on inadequate material are very fallacious. After all, you cannot really judge of the week-end very

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well yet, because first of all it took people a little time to understand it. It has been keeping wonderfully steady, between 5,000 and 6,000 words a week, so far as we are concerned. I do not know what the Eastern have. Now, looking at the figures of ordinary traffic, and taking that great proportion which is supplied by the business traffic, and taking the present rate of 3s. a word, combined with these elaborate combination codes which get in, it is very difficult to say how many, but certainly not less than six effective words for each word that is in the code (and when I say effective, I mean omitting obviously useless words like the article "the" or "a" and things of that kind). I do not suppose the rate really exercises any restraining influence upon business people in the matter of cabling. I think it is difficult to suppose that, over such transactions as the cables deal with, a few shillings more or less could make much difference. Therefore, under the circumstances I should very much doubt whether for business people, taking any conceivable reduction which might be possible at the present moment such as 6d. or anything of that kind, it would make any difference at all in the traffic. I do not think it would. The only people it would make any real difference to would be private people who on occasions, and only on occasions, find they would like to telegraph, and if they find the prices very high they say, "We must do without." If, on the other hand, they find it is moderate, knowing that they have got these opportunities, the deferred and the week-end, they will probably resort to them, and it is only that class of business that would be affected. As I say, that class of business is relatively quite small, and I think that the possible extensions of it are not great, because nobody telegraphs for the sake of telegraphing. You must have a good strong reason for telegraphing before you do telegraph; even in this country one does not send a telegram even at a halfpenny a word if a letter will do as well. So that I think, from that point of view, such a reduction as 6d. would have very little effect upon the total amount of traffic, and would result in merely a corresponding reduction in our revenue, which at present we cannot afford.

581. That applies to the full-rate telegrams?—That is so.

582. Now as regards the deferred and the week-end, what do you say about either a further reduction of price or further facilities, such as those we recommended?—I think they again would certainly result in loss. What we felt was that the justification for introducing the deferred at all was this: we considered (and I think it was generally considered) that it would to some extent create new business, that is to say, that a considerable amount of traffic would be created which would not otherwise have existed, it would induce people to use the cable, who, if they had to pay the 3s. rate, would not use it, and experience, I think, shows that has been the result. I do not think that more than about half of the traffic we get for the deferred is new traffic. A good deal of it represents business: if you look, they are nearly half-and-half. The business half represents, I think, pretty largely messages which were not very pressing in point of time, and which it was more convenient to send in plain language; after all, there is always a certain advantage in sending in plain language, because you save the coding at one end and the decoding at the other; so that if there is nothing secret about a message, if there is nothing which for business purposes you do not want to be known, and if you are not in a very great hurry there is a certain advantage in sending deferred. If deferred had not existed, I think probably all those messages would have been sent, but they would have been sent in code, packed much tighter, so that there perhaps we gain a little. It might be worth people's while, instead of coding a message, to send rather a longer message at the deferred rate, and spend a little more upon it, just to save the expense of coding and decoding at the other end. But to reduce still further I think would have this effect, that it would transfer a certain amount of business from the ordinary category, which pays us well, to the deferred category, which barely pays us except in so far as it may be new business. Then I

should say the same of the week-end cables, that there is always the risk, if you make those things too cheap, that you do really merely transfer a certain amount of the full-paid traffic to the half- or quarter-paid rates.

583. However, if coding reduces the number of words to one-sixth and your difference of charge is only one-half, you are really making the sender of a deferred telegram pay three times the rate of the coder?—You are, but it is necessary to do that in order to prevent the business being transferred from the category which is remunerative to the category which is unremunerative. The whole object of the deferred was not to benefit business people, but to alleviate the tax on private persons who, on occasions, had to use the cable, and in so far as it relieves the business people that was not our object. Of course, I agree I should not dream of wishing to keep the rates up higher than necessary to make the thing remunerative, and the more you can come down the better, but for the moment we want to get a certain revenue out of the cable, and if we were to reduce the deferred further we should diminish our chances of getting that revenue.

584. However, you agree with me that effectively you are charging the deferred telegram in plain language three times the rate you are charging the cypher telegram at full rate?—No doubt, yes, roughly that is so.

585. That is basing myself on your calculation?—Roughly.

586. Now we come to the question of load factor?—I think the Commission have already had before them the little volume of notes\* which we published a year or two ago, and in that we give 7,000,000 paying words per annum as about the maximum.

587. What proportion of your real maximum capacity is now passing over the Pacific cable?—Roughly three-sevenths. We are doing, you may say, at the present moment about 3,000,000 words all told.

588. That is including deferred?—Everything. I have put the maximum theoretical capacity at 7,000,000. I should say that is considerably higher than the estimate which the Post Office made two years ago of the carrying capacity of an Atlantic cable, although our length of cable between Vancouver and Fanning Island is pretty nearly double what the length of the Atlantic cable would be, so evidently there is room for a great deal of difference of opinion. For the purposes of argument it is better, perhaps, to put it high, and I would rather put it a little too high than too low. I think you may take 7,000,000 as a very full estimate.

589. That is with the recent developments, the duplex working and so forth?—Yes.

590. It would not be higher than that?—No.

591. What do you say of the load factor of three-sevenths? Does that allow you more than enough margin?—Yes, I think so. That is a matter perhaps for people who are better acquainted with the technical working, but my own impression is that 5,000,000 words would be about as much as it would be advisable to have in order to avoid the danger, which is very serious, of the cable getting itself blocked with matter which is not really very important, to the exclusion of business telegrams which are really urgent.

592. So you have then a capacity of dealing with about 5,000,000 words as opposed to the actual 3,000,000?—I should put it like that, and even then of the 5,000,000 a considerable amount must be of a kind which you could defer; for instance, we are entitled to defer press messages up to a point, and with the deferred and week-end cables also we are entitled to defer them, but allowing for that I think about 5,000,000 words, or perhaps 5½ million words of all kinds would be about as much as it would be advisable to put on to the cable.

593. You state here that it would not be desirable to increase the load factor by traffic which did not bring in an average of at least 1s. 6d. a word?—Yes.

594. Would you kindly develop that?—If I had a copy of the little book of notes which was supplied to the Commission it would help me.

595. Then we will pass on from that just now, and come back to it. I think you have something to say with regard to the co-operation between the Pacific

\* "Ibid" Pacific, being some notes on the Pacific Cable."

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cable and the Eastern cable?—Yes. I do not know how far the Commission is aware of the history of what passed in 1905, but in 1905 there was a committee which sat at the Colonial Office, presided over by the late Mr. Lyttelton, on which there were representatives of the different Dominions and ourselves. The immediate purpose of the inquiry was to look into a matter which is rather ancient history now, but at the very time when the negotiations were going on for the laying of the Pacific cable, and after it was quite clear almost that the Pacific cable was going to be laid, the Eastern entered into an agreement with the Government of New South Wales which allowed them to open offices of their own to a greater extent than they had done before. The promoters of the Pacific cable were very much annoyed at this, because they said, "This is giving an advantage to the Eastern at the very moment when you do not want to give it to them, because you are just going to start your Government cable," and there was a good deal of feeling on the part of Canada and New Zealand, I think, and so the great question was: "How can that agreement be set aside?" The conference met for the purpose of discussing that. They found, as a matter of fact, that the agreement (which had been confirmed by a later agreement with the Commonwealth Government) could not be set aside, and it stands now, and it was in virtue of that agreement with the Eastern that the rate was reduced to 3s. just before the Pacific cable opened. In the course of that inquiry, when they found that they could not really get rid of these agreements, it occurred to them that another way of meeting the difficulty was instead of actively competing with the Eastern that the two should combine, very much, I suppose, on the same principle that while an existing railway will fight to the death to prevent a new railway being established which competes with it, if the new railway is established they then probably think the best plan is to come to terms with them. That was the sort of idea. Those negotiations were pursued to a considerable point, and at that time, owing to the circumstances, a considerable saving could have been made on the expenditure of the two routes by a combination. A very large item would have been that we should have been able to dispense with our cable ship, which was costing us 15,000*l.* a year. Under present circumstances that could not be done away with, and I do not believe there would be any very large saving of expenditure. There would be some, because we spend a certain amount of money in canvassing for clients, and so do the Eastern, and probably the Eastern would be able to close certain offices because there would be no longer any particular reason for giving their clients special facilities if we had a common purse, but I do not think there would be really any very great saving. Still it would certainly have advantages of a kind to both. To us the great advantage would be—I do not want to suggest that I recommend it—but undoubtedly it would have an enormous advantage in this way for us that we ride by a single anchor, so to speak, by a single cable, and if we had a working agreement and a common purse arrangement, if there was an interruption of our cable our revenue would not suffer. The whole would have to be carried by the Eastern cables, and our revenue would keep up, whereas as things are now, if we had a bad break which lasted for any length of time in the northern parts of our cable, our revenue ceases altogether. I think that is really the most important consideration there is about it.

596. However, feeling is so strong against the idea in Australasia that I do not think we need pursue it in any detail?—No, I do not think it is a question of practical politics for that reason.

597. You say here that "Although no precise law or regulation determines the powers of either administration in the matter of rates, circumstances conspire to make them in practice the subject of agreement"?—Neither in the Act which constituted the Pacific Cable Board, nor in any instructions issued to us by the Government, is there any specific direction or definition of what our powers are as regards altering of rates. It may be assumed that we have theoretically

almost complete power, subject to the general scheme of our enterprise, which is that it is to be, if possible, self-supporting. On that Mr. Chamberlain gave very strong assurances. In a letter which was signed by Lord Selborne addressed to the Eastern and Eastern Extension Telegraph Companies, dated 10th July 1899, writing on behalf of the Secretary of State, Lord Selborne said: "There is no intention of working the new cable on other than commercial lines and at remunerative rates."\* I have always held, myself, and I think the Board since it was instituted has held, that that really represented the principle upon which we were to endeavour to work, and therefore that we should not be justified in introducing rates which were not remunerative.

598. What meaning do you attach to the words "On commercial lines"?—That we should manage it as much as we can as though it was a private business; in other words, that we should manage it very much as a cable company would manage it.

599. Does that mean that you would have as high rates as the traffic will stand?—There I think you would have to qualify it. I think it is perfectly clear that if you take the history of the Pacific cable, and the intentions of those who laid it, you would never really be able to carry it on long at rates which brought in a substantial profit; in other words, that the general revenues of the countries which laid the cable would not be allowed to reap benefit by profits made, and that the moment you got to that point you would have to begin to think about reducing rates, certainly.

600. The origin of the Pacific cable was primarily to reduce cable rates to Australia, we have been told?—No, I should not say that. Of course, I had nothing to do with the thing at that time, but my reading of the history of it is this, that the moment the telegraph wires reached the Pacific coast of Canada, it became inevitable that somehow or another the Pacific Ocean should be spanned by cable. You have a large British Dominion on one side of the Pacific, and you have large British Dominions on the further side, and it was quite clear that those countries had got to be connected by a cable, and I think that was the reason. No doubt also it was desired to establish something in the way of competition, especially, I suppose, that would influence Australia and New Zealand, and that they then felt that if there was competition they would be assured that they were not being charged unduly for their cable traffic.

601. Was not the motive of Australia and New Zealand in joining in the guarantees to obtain cheaper telegraphic communication?—I suppose, undoubtedly, that would enter very largely into it, and it undoubtedly had that effect. The immediate effect was to reduce from 4*s.* 9*d.* to 3*s.*

602. You go on to speak of deferred and week-end messages, which you have already explained, and in connection with daily cable letters you say: "The Pacific Cable Board have considered the question of adopting the American system; but hold that it is not appropriate between countries in which day and night do not coincide, even in part." Will you kindly explain that?—The system of daily cable letters I think we have now established here, and they have it in the United States. The idea of that was, no doubt, to utilise the wires during the hours of the night when, if it was not for this sort of traffic, they would not, perhaps, be being used at all. In the earlier part of the night they are heavily charged with press work, but in the later hours and in the early morning hours they are probably pretty free. Now we have no such time as that, because if it is night here it is day in Australia, and if it is day here it is night in Australia, and the consequence is that there is no dead time.

603. So that you do not see your way at the present stage to recommend any increased facilities?—No, I think any increased facilities would tend to reduce our revenue in a way which I do not think is at present justified; for instance, you were suggesting just now that the time would come when we covered our own expenses and did not require any subsidy, and I replied that then, no doubt, you would have to begin

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to consider reductions in rates. That is the time when I think you might very well consider improvements, that is to say, an increase in the advantages given for those cheaper rates. For instance, if you could not give away as much as a percentage reduction over everything, you might begin with reductions of the kind which have been suggested in connection with week-end cable letters, and perhaps reduce the rate or give more words or fewer words as a minimum. All these things tend to make it a more expensive service to us and a more attractive service to the public.

604. Would the reduction of the minimum number of words of the week-end letter act detrimentally?—I think it would, because every change of that kind you make tends to obliterate the distinction between the deferred, which is the ordinary daily message, and the week-end cable. For instance, if the week-end cable was to be conveyed by wire inland as well as by cable over-sea at both ends, and if it was to be delivered on a Monday morning, there would be really no distinction between it and the deferred message; and it comes to that, that you would then be giving your deferred message for two days at the end of each week at half the ordinary rates.

605. Those are two days on which your lines are normally vacant?—No, there is a fair amount doing. If you take between this country and America you may say there are, perhaps, 40 hours at the week-ends which are more or less idle, but if you take between us and Australia and New Zealand you really do not get more than 24 hours because there their Monday has begun before our Sunday is ended, and our Saturday is going on during part of their Sunday; so that there is a good deal less dead time, and that is one reason why, when we first suggested adopting this American plan of the week-end cable letters, we doubted whether we could be quite as liberal as the American scheme was, for this reason partly, because we did not want to make it too attractive and we had not as much spare time. The idea of the week-end cables, I think, was this, that it should enable people who might like to send rather a long telegram from time to time to do so, and that we should give them the opportunity of doing that at a fairly cheap rate. We did not want it to take the place of the deferred. The minimum charge for our message is now 18s., but negotiations which have been going on with the Post Office lately will almost certainly end in the minimum charge being reduced to 15s., which is the equivalent of 20 words; if you are to come much below that you get into an order of message which is really an ordinary deferred message. We do not want that the ordinary sort of message of congratulation, or the message as to having arrived safely in this country, and that sort of thing, should be cheapened. What we want is—let us take this sort of case, that somebody out in Australia has some law business in this country, and may be suddenly called upon quite unexpectedly to send rather a long communication to his agents, legal or otherwise. Our object is to give those people an opportunity of sending a message of that kind at a moderate price rather than to cheapen the ordinary message which would otherwise go at the deferred rate.

606. Would you not wish to stimulate the sending of family telegrams of a social character?—Personally, I should not.

607. Speaking quite impartially, that is surely a new source of income which might conceivably be developed?—I do not think you would get much out of it; there is no particular object in it. Let me give my own experience: for the greater part of my life I had two brothers out in Australia (they are not there now) who spent the whole of their lives there, and every now and then we sent a telegram, but however cheap they might have been I do not think we should have sent any more—why should we?

608. That is hypothetical.—I do not think you are suddenly inspired to send a telegram out of family affection.

609. But your family affection surely might be curbed by high prices?—You would like Christmas greetings or birthday greetings.

610. (Sir Rider Haggard.) Cases of illness, and so on?—Yes, but I think for those things we have got it

as cheap as we can afford to make it. I should be glad to see it cheaper if we could afford it, but the whole of my argument rests on the fact that you would not then make up our loss. While perhaps a few more people would telegraph in case of illness, and so on, that would not make up to us for the loss we should have on messages we should have had in any case, and paid for at full rates.

611. (Chairman.) I quite understand that you do not want the people who now send at 3s. to send at 2d.—No.

612. The question is whether it is not possible by extended facilities to reduce rates and to tap a non-existent source of revenue?—That exactly states the case, I think, and I say "No, it is not." It is quite true you might tap all these sources and you might produce a certain amount of new traffic, but the amount of extra traffic you will produce will nothing like compensate you for the loss you will incur upon traffic which you would have had in any case.

613. At the higher rate?—Yes.

614. There are two particular points you rather wanted to give evidence about, and one is about the Sydney "Sun" service on which we had some evidence in Australia?—Yes, you had some evidence which implied that it was owing to our inability that we did not get the traffic. I did not think it worth while bringing all the correspondence, but I will read you two telegrams which passed on the 20th March 1913 between ourselves and our Manager in the Pacific. The Manager in the Pacific telegraphed to us on the 20th March 1913, "Sun" (that is the "Sun" paper) "likely to give us half press service providing we can guarantee same time in transit as Eastern. This is stated to be 1½ to 2 hours. The messages would be lodged in London between 8 in the evening and 1 in the morning. I suggest that Atlantic Company be approached for co-operation and promise expedition for this traffic before going further." We were able to telegraph the same day to them, "Press messages; have approached Atlantic companies who have promised expeditious service. Appears quite safe to offer as rapid a service as the Eastern." As a matter of fact our service is really, whenever everything goes smooth, as quick as, if not quicker than, the Eastern, so that as far as we were concerned we undertook to do exactly what they asked us to do, and we hoped, as the result of that, they would divide the traffic equally between ourselves and the Eastern, which is what they proposed to do, but for some reason, which has not been communicated to us, they have, as a matter of fact, given the whole of their work to the Eastern. I merely want to point out that it was not our inability to offer them a good and effective service, but some other reason they have not told us of.

615. There is another point about the identity of the rate between Australia and San Francisco with that between Australia and Vancouver?—That is quite true, and at first sight it might seem strange. But, after all, the same thing happens now in the case of a message for Germany (that is not so with France, because we have not been able to arrange the rate: by our route to France it is 3s. 6d., whereas by the Eastern it is only 3s., so that the Eastern gets all). But when the Pacific Cable was first established we entered into negotiation with the German people with the result that we were able to offer a 3s. rate from Germany to Australasia, which is the same as from the United Kingdom. In a corresponding way the 2s. rate, which is for the American Continent, applies to the whole of North America, and, after all, it is Australian business and Australian businessmen who pay, I suppose, the greater part of it.

616. (Mr. Tallow.) There is just one question I should like to ask regarding the press. You have given us a statement of the Australian press traffic. The last figure for the year 1912-13 is a very striking figure: there is an increase to 627,511, and that appears to be on account of the reduction to 7½d., which occurred in September 1912: does not that look as if, when the rate is made sufficiently low, it would induce a considerable accession of traffic?—No doubt the 7½d. came in on the 26th September 1912, so that it has been in force a little more than a year. But I should imagine

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that that great increase is due really to the starting of new papers in Australia. I cannot speak for certain.

617. Do you know to what extent these new papers have contributed to that large increase?—I cannot tell you that.

618. May we not assume that the reduction to 9d. was not sufficient, but that the reduction to 7½d. was sufficient to induce a large additional business?—I should certainly not infer it from those figures.

619. Is not that what they show?—If a 25 per cent. reduction in 1909 has no effect whatever upon the amount of traffic, I hardly think that it is likely that 1½d., which is only half, a year or two afterwards would account for this enormous increase. If you look, the great increase has taken place on what the Eastern have carried.

620. The reduction applies on both routes?—No, the Eastern have no deferred.

621. We are speaking of the press messages; do the Eastern not charge them 7½d.?—Yes, but not the half rate.

622. The deferred figures apply to both routes, by which the rates are the same?—Yes.

623. And the assumption is that the reduction has made a very large increase, and even the reduction to 9d. made a considerable increase, because in the year 1911–12 there is £26,000. To my mind this statement shows that the reductions have produced traffic.—I am afraid I should not agree.

624. Then on this larger statement here, comparing the figure for the year 1896, the figure for Europe was £1,987,000, as compared with the last year 2,068,000, by the Eastern route only, but I think, as Mr. Campbell suggested, that is really a bad year to take for a comparison, as it was abnormally swollen by special circumstances, and all the other years are considerably less?—Quite so, but the pressure of the 4s. 9d. rate is a constant thing. Those variations represent the effect of influences which are not constant and which we do not know; but as to the 4s. 9d. constant rate, you surely get a better test of the mischief it can do by seeing what the traffic could get up to with the 4s. 9d. rate than by taking an average.

625. I only wanted to call your attention to the fact that you do not take a normal year for comparison.—I took it deliberately on that ground.

626. You admit your cable is capable of doing a very large amount of extra work, some 2,000,000 words?—Yes.

627. And that additional work could be done at very little, if any, increased expenditure?—All increase of business leads to increased expenditure.

628. Not necessarily, I think.—It is very difficult to show; it is rather like drawing the hairs out of a horse's tail; each hair you take does not make any difference, but eventually the tail disappears. In the same way one cannot go on doing more business and keeping the same staff. I do not say that with a very small percentage of addition we could not do with the same staff, but you very soon get to an increase of staff.

629. There may be some, but no serious addition up to a certain point; to a large extent the staff could be employed in doing more work?—Yes.

630. If that is the case is not it really good business to endeavour to attract additional traffic even at lower rates? You have instanced railway companies; that is just exactly what railway companies do. Take their week-end traffic, they arrange week-end excursions to induce traffic which would not otherwise come?—Yes.

631. Is it not well worth while to try to enlarge this description of business, which is at present a very small percentage of the whole at the cheaper week-end rates?—That is what we have been doing exactly, but we have done it to the extent we think wise and safe.

632. Cannot you experiment a little further with it? You could go tentatively and quietly and see the result?—We could do it, but if we are quite satisfied in our own minds that it means a loss of revenue, we do not feel justified in doing it. That is the whole point.

633. On the other hand, if there is no loss and if it induces additional traffic, should not the benefit which it confers on Australia and New Zealand be taken into account?—I come back to that, that we are convinced, as I said to the Chairman, that while no doubt if you cheapened rates you tap sources of traffic which do not now contribute to our revenue, you would not tap new sources to a sufficient amount to cover the loss you would suffer on the existing traffic. You cannot cheapen only the new traffic; you must cheapen both the old and the new.

634. To such an extent as the old traffic falls into the new, which may be only to a small extent?—It would not be to a small extent; it would be, at all events, to an appreciable extent.

635. I want to draw your attention to one matter in your paper. You say: "The present load factor of the cable is about three million paying words per annum. The margin is more than enough. But a substantial margin is a necessity. The service on a cable loaded to its full capacity would be no more satisfactory than a passenger train service with every train loaded to its full capacity." On that point I would just like to say that every train loaded to its full capacity is just what railway companies are striving for, and by analogy I think your Cable Board ought to try something in the same way.—I am not a railway director.

636. If every train on a railway was loaded to its full capacity, there would be a booming business both with goods and passengers.—With goods. I would expect myself, if I were a railway director, and on my line every passenger train was crammed full, that the demands from the public for additional trains would be so great that I should have to put them on.

637. Not if there was room on the trains. If they were full, you would, for the surplus passengers supply additional trains at a profit?—You would always have the risk that somebody would come up to the train and not be able to get into it.

638. My idea is that it is good business to use your machine to its fullest paying capacity.—As a general principle, I quite agree, but I do not think it would be wise for us to go further than we have done. I think, after all, we have done a very great deal in the last two years. We have introduced this deferred traffic, which has been a very great boon to the public; we have introduced the week-end cables; we have reduced the price twice within the last four years; and we have made no less than three reductions on press messages, because we came down from 1s. to 9d., from 9d. to 7½d., and now we have also the deferred press service, which is really so cheap that the Eastern entirely decline to carry it.

639. Have not your receipts increased during those years you have been making reductions?—Yes.

640. Is not that an encouragement? Does it not show that those reductions have been wise reductions?—Certainly. All I am arguing is that I venture to think you press for reductions which would not be wise; that is my point.

641. (Mr. Loomer.) Just one question. Do you admit that your present rates are the most profitable you have yet charged?—I do not know that I should go so far as that. You mean that our total revenue has increased by these reduced rates?

642. I am proceeding on this particular ground, so far as we have gathered from the figures at present, that you are now, of recent years, getting much nearer to being self-supporting than you ever were before?—Yes.

643. And that has been more marked since you have made the reduction to the 3s. rate? We have always had a 3s. rate.

644. But you were away up at 9s. 4d. and 1s. 9d., and so on.—That was before the Pacific cable started.

645. I beg your pardon. You began in 1903, and you have always —?—We have always had a 3s. rate.

646. What I want to point out, if I may just call your attention to the first sheet of figures, is this: you had in 1896 the largest amount of business that was ever obtained under the 4s. 9d. rate?—The total traffic between Australasia and the United Kingdom

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was the highest in that year that it had ever been, yes; but you must remember that the Pacific cable did not exist then.

647. I had failed to notice that. So that your rate has always been 3s.?—Yes.

648. What I should like to call your attention to is that while the 4s. 9d. rate prevailed, there was an extraordinary irregularity in respect of the amount of business done year by year?—Yes.

649. But since the 3s. rate was introduced, there has been an almost, not quite, but an almost unbroken continuity of improvement; one year there was a slight decrease, but every other year has shown an increase on the previous year?—Yes.

650. So that you have now about 70 per cent. more business than in the largest year under the 4s. 9d. rate?—If you take the European business alone it is under 50 per cent.—48 per cent. increase.

651. I am comparing 3,426,000 words, the last line in the column there, with 2,065,000; that is an increase of about 70 per cent.?—Yes, but a very large amount of that increase is due to the American traffic which you may say the Pacific cable created.

652. Could you throw any light on the curious irregularities which prevailed in the years prior to the existence of the Pacific cable—sometimes higher and sometimes lower?—I imagine that was due to conditions in Australia; for instance, I forget when the last drought in Australia was, but I think it was somewhere about the beginning of this century, and there was the great bank crisis in the nineties.

653. But this is in 1896, and I wondered whether there was any public matter which would account for the large increase of business over the previous year, and for the falling off in the years which followed?—I do not think we can say so; I suppose it was owing to the general condition of trade. The wool trade, of course, brings in a considerable revenue, and the fluctuations in that may account for a good deal.

654. As that existed before the Pacific Cable Board, you cannot tell what were the proportions of press messages to private messages in that year?—No.

655. But as there has been such a steady and almost unbroken increase in the business since the 3s. rate was introduced, does it not suggest that there is possibly a field for further development at lower rates?—No, I think not, because the lower you get your rates, the moment you have got your rates down to a quite moderate charge which really does not oppress business men and does not really check the amount of cabling they do, then a further reduction does not stimulate business so much as it is a gain to the business men, and puts money into their pockets.

656. The people in Australia told us that with a rate of half the present rate the cabling would be enormously increased. They suggested that instead of keeping large stocks as they do just now they would cable almost daily for the correct amount of stock and so on?—I cannot speak upon that, but I should venture to doubt it.

657. At all events the fact remains that with the present rate, which is so much lower than formerly, there has been a steady increase of business year by year which remains unbroken at the present moment?—I think you may say so.

658. There is one more question I want to ask—I do not know whether you referred to it or not, but it is with regard to the proposal for a State-owned cable across the Atlantic: your own opinion is adverse to that?—I do not think it is wanted, and I am quite sure that it could not be remunerative.

659. I simply wanted to ask this: Is your opposition grounded upon commercial reasons only or on strategical as well as commercial reasons? Purely on commercial reasons.

660. (Sir Alfred Salomon.) I think you and I are about contemporaries?—I think we are.

661. Do you not think you are rather pessimistic in your sentence here about cable rates. "Cabling does not appeal to a universal and almost insatiable appetite. Rather it represents a painful obligation, to be obeyed only under pressure. To cheapen the process may diminish the distaste for it, but can

"never convert it into a pleasure"?—I certainly speak for myself when I say that, but I should not like to speak for anybody else.

662. You have not been in Australia yourself?—No.

663. Certainly I was very much struck with the wish the people seemed to have to cable more and more—the pleasure they take in it.—They would give us great pleasure if they would only obey that impulse.

664. But they are waiting for you to reduce. Do you not think you will tap a good many sources by reduction?—Undoubtedly you would bring in a certain amount of additional business, but as I said before, it would not compensate you for your losses on the old business; and, after all, that is the point we have to consider. I quite agree that once we get to the point of being self-supporting, no longer requiring a subsidy and so on, all those questions would come directly within the range of practical politics.

665. As regards increase of messages, I do not think you told us that that meant increase of cost. Supposing you have 3,000,000 and afterwards get 4,000,000 words, does that addition represent any large increase in cost?—Undoubtedly our establishment charges would distinctly go up.

666. Would they go up considerably or to a small extent only?—It is very difficult to say, but there is one thing you will at once have to do; the mere accountant's work in connection with these messages is a big business. A careful record has to be kept of every message, and it has to be counted and entered, and a claim made against the other administrations, and so on. You largely increase the amount of clerical business and then, if you increase the amount of the operating, you have to increase your operators.

667. Still, not a very large percentage?—No.

668. Have the Board considered the position of Canada with regard to the wireless system—the question of sending messages by the Canadian wireless?—Across Canada do you mean by wireless?

669. Yes.—We have not taken that up actively yet, because really our view is that wireless at present is in such an uncertain position; it is obviously going to play a very important part, and sooner or later we shall have to take it up, but the experience of other people who have entered into contracts for wireless does not encourage us to embark on a contract at this moment.

670. Perhaps you do not consider it essential at present?—No doubt it will have to be kept in view.

671. But not at present?—With the competing systems it is so uncertain which is the best and so on, but after all the Canadian Government have entered into a contract with one of the companies, the company which has the Poulsen system, and we shall watch the development of that very closely.

672. (Mr. Campbell.) I do not know whether I quite understood your figures about the load of the present working business of the cable. You say that a full load would amount to 7,000,000 paying words a year?—Yes.

673. Then you give the figures of the business transacted now at 3,000,000 words a year?—Yes.

674. Are the 3,000,000 words paying words?—Those are 3,000,000 paying words of all kinds, including press and deferred press and every message of every sort and kind. In our last annual report up to 31st March last, the exact number is 2,670,575. Those are all paying words in the different classes. When I put it at 3,000,000 I took a round figure, and our total traffic is rather bigger this year than last.

675. You estimate that the cable could fulfil work, allowing a proper margin, at the 5,000,000 words?—Yes.

676. Practically, your present business only amounts to one-half the practicable load of the cable?—Yes.

677. In your *précis* of evidence you say, "To increase the load factor by traffic that did not bring in an average of at least 1s. 6d. per word for the full transit between Europe and Australasia would not be remunerative to the Pacific cable"; was not that little book called "*Via the Pacific*" published by the authority of the Cable Board?—Yes.



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678. In that it is estimated that 1s. 4d. is the lowest remunerative price?—Yes, I think 1s. 4d. is putting it very low, but perhaps I ought to have kept to the 1s. 4d., which is nearer.

679. Shall we read that 1s. 6d. as 1s. 4d.?—Yes, please.

680. You still have somewhere about 2,500,000 words to make up a reasonable and safe load for the cable, and you carry press messages at 7½d. a word. Would it not pay you to load up the cable at a price similar to that of press messages if you could get a volume of business?—I do not think it would, because it costs us more than 7½d. to carry the press messages now. The press is not remunerative work.

681. The press business does not pay?—I do not think so; as long as you do not have too much of it, you can fill up spare time with it, but if you have got too much of it, it would not do to load up the cable to any very great extent with traffic at 7½d.

682. This is the point which is worrying me: Do you want any more press business—would it pay you to take it?—If you ask me I do not, but I quite recognise that it is desirable that the cable should be used for the purpose of press messages to as large an extent as is really required in the interest of the public, keeping them informed, and so on. But from the point of view of our business I would much rather not have the press message.

683. To that extent the question of public policy does come in?—Yes.

684. And you would take unremunerative business from the point of view of public policy?—Yes, up to a point.

685. One thing in connection with these press messages: You give the figures here showing an increase of business following the reduction given to the press messages. You show an increase in words of 96 per cent., and an increase in revenue of 22 per cent., but I think you told the Commission that in your opinion the result of the reduction of press messages was practically nil; was not that so?—The result of the first reduction to 9d. I consider was nil; that is to say, it was nil in the sense that it was nil in so far as the increase of traffic was concerned. It took 4,000l. out of the cable's pockets and put them into the pockets of the press, but so far as stimulating the communication of news between this country and the Dominions was concerned it was nil.

686. This was the point that was appealing to me, or rather that I did not quite understand. You got an increase of 22 per cent. of revenue following on the decrease of the rate for press messages. Were there increased expenses in connection with the working of those messages amounting to 22 per cent. also? I am taking it from that table you have given us of the Australasian press traffic?—You are taking the last figure for the year 1912-13.

687. I am taking the figures at the bottom of the return: "Total press traffic for the year before first reduction," and so on. What I want to know is this: you got a 22 per cent. increase on revenue; did that entail a 22 per cent. increase of working expenses in connection with that increase of business?—I could not answer that question, and it would be very difficult to say. I can only say that during the last four or five years we certainly have been adding to our staff of operators, and this increase of business for the press would have been part of the cause. We have also had increases in other work. I think, undoubtedly, some increase of charge has been created by that, but by exactly what percentage I could not say. It would not be so much as 22 per cent.

688. In connection with this return, "Statement showing four weeks Ordinary and Deferred Ordinary International Traffic," under "Deferred Ordinary," you show us on the outward traffic there is 52 per cent. of private business as against only 7·27 per cent. of private business on the ordinary traffic. Does not that seem to show that by introducing the deferred ordinary rate you are really creating, if not an insatiable appetite, to use your own words, at any rate a desire for a private use of the cable, which did not

have any means of satisfying itself before?—As regards the private part, yes. What we have done is, that we have brought cabling within reach of a certain number of people who before could not afford it, and that, of course, is a great gain; but, on the other hand, the whole of our revenue from deferred ordinary has certainly not been gain. Some of it has.

689. I am not putting it as a question of gain; I only put it as to whether you are not creating a class of business which did not exist before apparently, or that did not exist to any appreciable extent. You seem to be doing so?—Yes.

690. Do you not think that with further reductions, perhaps not so great as that you give to press messages, but with a reasonable reduction below 1s. 6d., that demand would be very widely increased in a country like Australia, which is so far separated from this country by ordinary mails?—I do not myself believe that there is any very large source of supply, so to speak, to be tapped, but that there is a certain source of supply is undoubtedly the case. The whole question with us is this—in connection with any proposal that is put before us of that kind, we recognise it would be desirable to bring cabling within the reach of as many people as possible provided we can do so without making the public pay for it. That is what it comes to. Anything we do which involves loss of revenue means this, that the taxpayers of this country and of the different Dominions have to make up the loss. We want to avoid that. We feel we are bound to avoid doing anything which in our opinion would have that effect.

691. Quite so, but your little book "*The Pacific*" shows that that loss is a very rapidly decreasing one; with all your reductions of the last few years you are approaching the point where the cable is becoming, in spite of the reductions you make, and in spite of unremunerative press business, a paying proposition?—Yes.

692. In connection with the talked-of Atlantic cable, I see you give the estimated loss on the cable at 25,000l. a year for the Atlantic portion of it. The Post Office gave us a loss of 20,000l. a year on present figures. Would your figures be later or earlier than theirs?—My figures were taken two years ago. I am not sure when the Post Office estimate was made. I ought to say that it is extremely difficult to make any very definite estimate until you know exactly what is meant. I have never really quite made out how far those who advocated the Atlantic cable proposed it should be used for Canadian business as well as for Australasian business. I think our estimate was based on the supposition that it was confined to Australasian business.

693. That estimate of yours made two years ago of a loss of 25,000l. is made on the assumption, I understand, that only the business passing over the Pacific cable would pass over the Atlantic cable?—Yes.

694. That does not allow for any business coming from North America over the proposed new Atlantic cable at all?—No, I do not think it did, if I remember right.

695. So far the matter is clear now. You have not any figures showing on your latest statistics of the business of the Pacific cable, what would be the loss on the Atlantic cable made up as for the last year. It would be less I suppose than 25,000l. now?—If the cable was confined to Australasia?

696. No. You have estimated a loss of 25,000l. per annum on the Atlantic cable based on figures in connection with the Pacific cable of two years ago?—Yes.

697. Supposing you were to take your latest figures of the Pacific cable, about what would that loss show now? I do not think it would make very much difference, because, as a matter of fact, our increase of business is very largely on business that would not come across the Atlantic cable. You see a very large proportion of our revenue is on American business. Our increase is greater on the American business than it is on the European business.

698. You do not think there would be any great reduction of those figures if the latest figures of the



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Pacific cable were taken? I do not think it would make very much difference.

699. In connection with the deferred telegrams and week-end letters to Australasia, so far as you have gone on both of those lines they show, I think, a very heavy increase since they began month by month. According to the Postmaster-General's Report here I see that much use has been made of the deferred service, showing an increase since the first month of the service of 120 per cent. I suppose we may take those figures as correct?—Yes. Undoubtedly the deferred tends to increase, and I have no doubt the week-end cable letters will, too, as they go on.

700. Both those lines are showing a very promising increase in business?—Yes.

701. And both of them are remunerative to the cable, are they?—I should doubt whether the week-end cable letters were very remunerative.

702. You do not think the week-end cable is remunerative?—No, I do not think *all*, a word, if you really put it to the test, would be, except for the purposes of filling up spare time.

703. But you have 2,500,000 words to fill up on the cable which might be filled up by some of those messages?—Yes.

704. (*Chairman.*) Can you tell us how you distribute your traffic between the Western Union and the Commercial Cable Company?—From this side each company gets what traffic it collects for itself; they have their own offices and so on. Taking messages that are handed in at a post office, if they are routed by a particular company, they are handed to that company; they have to go, but if they are not routed they are divided equally between the two. Then coming home we try to divide as equally as we can between the Commercial Cable Company and the associated companies.

705. If you had a large accession of traffic across the Pacific, would it improve your position for obtaining a lower rate across the Atlantic?—No, I do not think it would—you will probably hear that from the Atlantic people; but from what I learn from them, certainly the Western Union have not the least wish to reduce rates. I think they feel they have gone a little too far; if they had to begin again, they perhaps would not give so much as they have given for the last year or two, and for the moment I do not think they see their way to go further. The Atlantic cables are in this position, that they have enormous pressure for a few hours every day, and then the rest of the time it is different. They have far more cables across the Atlantic than are really necessary to carry on the business, if it was not that the most of the business

has to go between 2 o'clock in the afternoon and 7 o'clock in the evening.

706. You are capable of giving them business at their non-busy times?—Yes, we could be useful to them in that way.

707. If you had a considerable accession of that business to fill up your bad moments, your non-peak loads, would there be any possibility of a lower rate?—I think they are hampered to some extent by the law of their own country, which might make it difficult.

708. About preferential rates, do you mean?—Yes, they would very soon come up against some dangers there if they were to do much.

709. You appear to be in a peculiarly good position with them in that you can fill up their troughs?—Yes, I think our business ought to be rather useful to them.

710. (*Mr. Garnett.*) I think, Sir Henry, you said that your service being night and day, and not synchronising between here and Australia, was more or less continuous?—Yes.

711. If that is so, is not the Pacific cable in a better position for dealing with a large accession of traffic considering that night and day do not synchronise than it would be supposing night and day did synchronise and you had to rush it all into one very short period? I put the question for this reason, to ask you whether you cannot deal with that increased traffic, so to speak, without a large increase in your staff?—Well, it is quite true that the difference in time affects us in the way you have described; still, if you take the traffic from Australia our traffic is not on that account distributed evenly over the 24 hours. From the Australian end we have not a great deal of time to get things in, and we have to do it all in about a couple of hours. If you take the end of the business day in Sydney, say 5 o'clock, that is 7 o'clock in the morning in London, and a cable sent off from Sydney at 5 o'clock in the afternoon of Monday they want delivered in the London office before 10 a.m. of the same day, or even before 9, if they can, so that you see the whole of that business is crammed into two or three hours. From this end we have more leisure because, instead of the difference being 10 hours, it is 14, so for a message sent off at the end of the day we have four or five hours in which we could send it over the wires, and yet be in good time for the opening of the office in Sydney. Still, there are periods of pressure and periods of slackness.

712. Taking it altogether, that does give you an advantage as compared with a cable which is working only between countries where night and day synchronise?—Certainly.

713. The increase of staff would not be so great in yours as it might be in other cases?—Yes, that is so.

### Thursday, 13th November 1913.

MR. STANLEY J. GODDARD, European Representative of the Western Union Telegraph Company, called and examined.

714. (*Chairman.*) You are the European representative of the Western Union Telegraph Company?—I am.

715. Will you kindly read the evidence you have been good enough to prepare?—Yes. (*The witness read the following statement:—*)

I have been nominated by the Western Union Telegraph Company to tender its views on the particular points on which it is understood the Commission desires information.

The first of these, I understand, refers to the possibility of effecting a reduction of the ordinary rate for Australasian messages across the Atlantic; and the second, to the effect which a large access of Australasian traffic, such as it is suggested would be caused if a considerable reduction were arranged in the Pacific Cable Board's rates, would have in respect of such reductions.

I would first of all desire to make it clear to the Commission that the policy of the Western Union Telegraph Company is to give to the public the cheapest telegraph rates compatible with business principles with the view of extending the use of the service as widely as possible, as it believes that the best results can be obtained by a greatly extended use of the cable service; and as evidence of this belief I may point out that it was the pioneer of "week-end" and "night cable" letters in connection with its cable system to America.

It is, however, of opinion that under the existing conditions of the art of ocean telegraphy the present charge for full-rate telegrams, so far as the Atlantic portion of the transit is concerned, cannot be reduced, having regard to the expense incurred in carrying on an express service such as that given, and of maintaining, repairing, and providing for the depreciation

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of the very expensive cables, cable stations, and telegraph equipment that are necessary in connection with the service, and also to the cost incurred in providing, from time to time, improved apparatus, and in research work in connection with such improvements. It does not anticipate that any increase in the amount of traffic which it might share with the Pacific Cable Board would have the effect of enabling it to reduce the Transatlantic portion of the rate. The full-rate service is an expensive one to operate, a very large proportion of the words are in difficult codes in which mistakes are easily made, and the corrections (which are made without cost to the public) are costly.

As the Commission is no doubt aware, the "week-end letter" service is now in operation between this country and Australasia. It was introduced on the 1st January 1913, so that up to the present we only have the results of some nine months' working; and it is yet full early to gauge what the development of the service is likely to be when the facility is more widely known than it is at present; and the extent to which it is likely to encroach on the full-rate service.

It is quite possible that there may be, in the near future, a very considerable development of this traffic; but if it is found that some further facilities are necessary in order to make the service more popular, it might be possible to arrange for earlier deliveries at the terminal ends, and the Western Union Telegraph Company would be prepared, so far as its portion of the transit is concerned, to facilitate such an arrangement.

It would also be prepared, so far as it is concerned, to consider the introduction of a "night cable" letter service to Australasia, on similar lines to the service which exists between this country and America, if suitable arrangements can be made; the cable letter to be delivered at destination, say, on the second day after handing in.

It is understood that the Commission is desirous of knowing whether the capacity of the company's Atlantic cables is such as to enable a large access of business (such as might be expected from the reduction of the Australasian traffic) to be dealt with. In this connection, I would say that the cables at present being operated by the Western Union have a considerable unused capacity, and that this unused capacity is greatest at the hours when deferred week-end and night cable letter services would be dealt with.

In view of changes and improvements which my company has now in hand, and which when completed will still further increase the capacity of its cables, it has no fear but that it will, at all times, be able to satisfactorily handle any increase of traffic which may develop.

716. How many cables across the Atlantic do you operate?—Eight.

717. How many are there altogether?—There are 8 of ours; 5 of the Commercial Cable Company; 2 of the German Atlantic company, which runs from America to Emden; and 2 of the French company, from Brest to America.

718. That makes a total of 17?—I take it from you; I think it is.

719. And the full capacity of those cables is more than sufficient to deal with the present traffic?—The full capacity is more than sufficient to deal with the present traffic, I should think. I can only speak, of course, with reference to the cables we operate ourselves, and with regard to that I should like just to make this remark if the Commission would let me. When you are talking about the capacity of a cable you have to be very careful as to what you mean. I heard some evidence being given yesterday before this Commission, and I was not quite sure when that point was being dealt with what the capacity of the Pacific cable was—what Sir Henry Primrose actually meant. I want to make my position quite clear with reference to that. The capacity may be the actual capacity of the cable for carrying ordinary commercial messages on condition that those messages are handed in seriatim and in equal quantities throughout the whole 24 hours.

If that is what you mean by the capacity, you never get that condition in actual life, because the telegrams and messages come at infrequent intervals; you get busy hours and rush hours and you get very slack hours. What I mean when I talk about the capacity of the Western Union Telegraph cables is this—that at the peak of the load I have always got sufficient space to carry more business if necessary.

720. Does that mean that even in the rush hours you have got capacity over and above the traffic you get?—That is what I mean.

721. Even in the peak hours?—In the rush hours I have got capacity, over and above the traffic I get, to allow a margin for unforeseen contingencies.

722. *A fortiori* in the non-rush hours?—A much stronger case; I have got much more capacity then.

723. Could you tell the Commission this: Dividing the 24 hours into four periods of six hours, what approximately is your load factor in each of these periods; I do not want to tie you down to an exact figure, but an approximation?—That is rather a difficult question to answer, because I think that is driving me back into giving what I should call a "mean capacity"—a "mean" flow of traffic, and that might be very misleading. Supposing I were to say that my capacity during the 24 hours was only being used to the extent of 50 per cent.—and that may be roughly right—it need not necessarily convey a right impression to the Commission because during the peak of my load I may be getting such a lot of traffic that I cannot handle it properly. I think probably the best way for me to put it will be like this, if I say we keep a very constant watch on our traffic and see how it is going at the top peak load, and we are always looking ahead, so that if we see, for instance, that we are getting within, say, 20 per cent. (using that as a formula) of our actual capacity we have then to begin to consider how we are going to increase our cables to carry a still further load. We can increase this capacity by putting magnifiers on the lines which allow a larger amount of traffic to pass over the cables, or we can again (as we have in some cases done) increase it by shortening the spans of the cables, because the shorter the span, the greater the rapidity with which you can send your messages.

724. I understand that to be one preoccupation; another of your preoccupations is probably to fill up your non-rush hours?—That is one of the problems we have had to set ourselves to.

725. Then you have a large unused capacity in the non-rush hours, and it pays you to take traffic at a lower rate? We take traffic at low rates which we do not have to handle immediately, at a price which we hope will pay for the actual handling of the traffic and allow something over to be put towards depreciation, interest, and that kind of charge.

726. Have you a large unused capacity for that non-urgent traffic?—A very considerable unused capacity.

727. Which you are anxious to fill up?—That is so.

728. If one of your clients came to you and said "We can give you another 1,000,000 words a year or another 2,000,000 words a year of non-urgent traffic," would it answer your purpose, and would you be able to take that at an exceptional rate?—I do not think we should be able to take it at any lower rates. Are you talking of Australasian business, or of American business?

729. Of Australasian.—The Australasian business is only about 2 per cent. of our total traffic; so that if you were to increase the Australasian portion of our business, if you were to double it, that is increase it by 100 per cent., it does not make a very big impression on our total traffic at all.

730. I am talking of a possible addition in the Australian traffic of 1,000,000 or 2,000,000 words a year, which I understand you could easily handle, of non-urgent traffic?—Yes.

731. On what terms would it pay you to take that traffic?—At the present moment, as I have said in my proof, we are in this position. These new rates have only recently been started to America. The cheap American rates came into force at the

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beginning of 1912; and, as you know, the newest rates to Australasia came into force on the 1st January of the current year. Now, telegraphic traffic is a traffic that develops very slowly, and we do not quite know where the new rates are going to lead us. We know this, that month by month the new rates have been eating into our full-rate tariff traffic, and we have not got what we might call a law as to how far that eating-up process is to continue, and at the present moment we should not be prepared to decrease the full rate, but the two proposals I have put forward in my proof seem to us to be as far as we (looking at the Atlantic cable portion only) would be prepared to go at the present time until we have further information, and have had further experience of the rates in force at the present moment.

732. The point on which you are not sure is how far the cheap-rate traffic is a diversion from the old full rate and how far it is new traffic: is not that so?—That is so.

733. And that you are not yet able to tell?—That we are not able to tell.

734. I want to put this supposition case: Suppose you have an opportunity of obtaining new traffic, not a diversion of the old, from Australia to the extent of 1,000,000 words or 2,000,000 words a year, at what rate would it pay you to take it?—The position we are in, I think, is this, that if you could give us traffic to the extent of 2,000,000 words a year, we will say to Australia, we will be prepared to carry it as far as the West Coast of America for the same price that we would carry a message from London to the Pacific Coast. We now have a night-letter service from London to British Columbia, and we will be prepared, so far as the Australasian traffic is concerned, to treat the Pacific Cable Board as an ordinary member of the public at British Columbia, and to hand over a message at the same charge we would make to an ordinary member of the public.

735. But there is the fact that they have to levy a further charge. Your section is only a portion of the total transit?—Yes.

736. Can you not treat them better than the ordinary public?—We might be getting into difficulties with the American Inter-State Commerce Laws.

737. Apart from legal restrictions, what I want to get at is what it would pay you to do?—We do not think it would pay us to carry any service cheaper than we are carrying the American traffic for.

738. That is independently of any restrictions which the law may impose?—Absolutely.

739. The two facilities you indicate here as being proper to give are, first of all, means for making the present deferred traffic and week-end traffic more popular?—Yes.

740. That means, I suppose, what is called the single rate, does it not, making the week-end traffic deliverable by telegram, and including all kinds of services?—I was not going quite so far as that, sir. What I meant was this, that at the present moment the telegram which is handed in here at or before midnight on the Saturday should be, according to my proposal, deliverable on the Monday instead of on the Tuesday as at present.

741. Deliverable by telegraph, or does that not concern you?—That does not concern me; that is a thing for the Pacific Board. I am only dealing, and I want to make that clear, with my Atlantic section, to, in some cases, as far as the Pacific coast. It would be a reduction of 24 hours on the present delay.

742. That is to say, it would be a 36 hours' delivery instead of 60?—That is so.

743. The second point on which you would be prepared to meet the public would be to consider the introduction of a night cable letter service to Australia?

—Yes, on similar lines to the service between this country and America.

744. Just tell us what that would be to Australia?—I have not developed the tariff because that is the kind of thing I have to consult my partners, the Pacific Cable Board, about. What we should be prepared to do, or rather what we should propose, would be this, that a telegram handed in on Monday would be

delivered in Australasia on the Wednesday, that is the third day, if you include all of them. We at present take telegrams in this country for America, and they are handed in to-day and delivered to-morrow, and go at the slack hours of the night. We call it a night cable service.

745. That goes at what percentage of full rates?—One-fifth, or between one-fifth and one-sixth.

746. That facility you would be prepared to extend to Australian traffic?—So far as the Western Union is concerned, yes. I might put it again, if you will permit me to do so. I will put it that we will be prepared to extend the present rates that we have from England or Great Britain to British Columbia, where this service already exists, to Australasia.

747. I should have thought that in the case of Australian traffic you could have given greater facilities to Australia than to the terminal of British Columbia. Your rate to British Columbia includes two terminal rates?—I think not. We send a message here from London, we will say, and it has to go over the land lines to the cable, and it is re-transmitted at the cable station, and it is re-transmitted at some subsidiary stations on the way and then has to work its way, being repeated once or twice right across the continent of America. The cost to us is exactly the same whether the recipient of the message is John Jones in British Columbia, or whether it is the Canadian Pacific Board there.

748. In your memorandum you make a point of the difficulty of transmitting composed cipher words?—Yes.

749. Do you differentiate between cipher words and dictionary words?—I do not think that it makes very much difference in the long run. Of course, some of the codes that are being composed now are most awfully difficult. According to the International Regulations the words should be pronounceable, but the pronounceability of words take an extraordinary aspect, and words that are much worse to an Englishman than any Welsh words, for instance, are put into a code and are said to be pronounceable. Of course, when you get words with perhaps three "f's" and a "y" together in a code word you are extremely apt, when using the telegraphic signals which are used for cables, to get mistakes. That means that when the message arrives at its destination it cannot be understood, and we have to telegraph back right away along the line to the place of origin to find out where the mistake is and re-transmit it correctly. That is part of the charge and that is one of the expenses of the code.

750. That does not lead you to advocate the insertion between the cipher word on the one hand and the plain language message on the other, the intermediate dictionary cipher?—No, I should not recommend that.

751. What economy of words does cipher give? We have had evidence to the effect that it was seven words, or six words, or five words in one?—I should say in some codes it is very much greater than that. I was looking at a code, which was produced by a Frenchman, the other day and he had gone as far as this; that he was ciphering ciphers.

752. That is a double dictionary?—Yes; say that he had got a word that in one cipher would be a sentence of ten words, then he had ciphered that again so that the second cipher represented, perhaps, ten of these words, each of which represented seven words in the first instance; so that you might get 70 words represented by one cipher word. The possibilities of that are almost infinite.

753. You think the estimate of six words for one is rather under than over the mark?—Considerably too low.

754. In your non-urgent service do you allow ciphers?—No, we allow no cipher except on the full rate tariff.

755. So that even on your reduced scale the ordinary sender of a plain-language message is paying a much higher rate than the cipherer?—He is paying a much higher rate in a sense, yes.

756. That is to say he pays half the rate, but he sends a sixth, or less than a sixth, of the amount?—

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That may be so; for instance, two cipher words might possibly convey a hundred words.

757. Then the unciphered message would be paying 25 times the rate of the ciphered?—Yes.

758. You also accentuate in one of your sentences "under the existing conditions of the art": Am I right in taking that to imply that you expect rapid development and improvement?—I do not know that I should go quite so far as that, but I think I should be quite right in saying this, that we are constantly getting improvements in telegraphic instruments and not only in the instruments on the stations, but in apparatus such as this magnifier I was just speaking about. There are several of them.

759. What does the magnifier do?—The magnifier puts additional force into the cable, if I may say so, so that the signals come out very much more clearly at the other end and can consequently be transmitted much more rapidly.

760. (*Mr. Lorimer.*) Of the 3s. a word which is paid for messages between the Far East and England sent by the Pacific cable you get 10*d.*, I think?—I do not quite understand what you mean by the Far East; we deal with the West all the time.

761. The American cables get 10*d.*, do they not?—I have not got the make-up here, but I believe that is so.

762. I gather from your statement that is at present your irreducible minimum?—Yes.

763. I think I remember—it is a long time ago—that messages were cabled between England and New York at 6*d.* a word?—The deferred messages?

764. No.—Some time ago that was—yes.

765. A good many years ago?—Yes.

766. It was so long ago that I do not remember the details, but I suppose it was the result of some competition between companies?—It was the result of competition, yes.

767. How did that work out financially?—It was a dead loss, they had to put the rates up.

768. That really was a loss?—It was really a loss. They put up the rate; after the 6*d.* tariff I think the rate was as high as 2*s.* again, and then it was reduced to 1*s.* 8*d.*, and then it was finally reduced from 1*s.* 8*d.* to 1*s.*

769. How long has it been 1*s.*?—I think it has been 1*s.* since July 1888.

770. For 25 years?—Yes.

771. Do you publish accounts? We do; the Western Union does, but the Western Union accounts, so far as the cable system is concerned, do not show the cable system separately from the land line system. We are the biggest telegraphic concern in the world and we have something like 148,000 employees.

772. I asked whether you published accounts because I wanted to know (I do not want to pry into things which do not concern me) if you publish your accounts, whether this 1*s.* rate pays you very well? You have to take this into consideration, I think: I cannot give you any accounts of the Western Union showing the profits derived from the cable system alone, but the present arrangements have only been going on since 1911.

773. I do not know that I follow you. What have you in addition to your cable system? Nearly the whole of the land lines of America. We carry 80 per cent. of the internal traffic of America.

774. I was referring to the profits on telegraphy. You say you cannot tell us what the relation of your profit is to your capital?—I do not quite know whether I have made it clear to you. The Western Union Company is the telegraphic authority in the United States for about 80 per cent. of the whole of the land-lines system of telegraphy; the accounts of the Western Union are published as one entity, so that the cable system is not divided from the land-line system. The whole of the capital is shown together, and I can show you—

775. And the whole of the profits shown together?—Yes.

776. So that while you might be making a huge profit on your land lines and a big loss on your cables or the reverse, there is nothing in your accounts to show that?—That is so.

777. I asked that question because, if you had published accounts, I thought I should like to know to what extent your profits would apparently admit of a reduction on this charge?—I think I can help you to a certain extent upon that, because the two companies whose cables we lease to work across the Atlantic, that is, the cables of the Anglo-American Telegraph Company and the Direct United States, publish their accounts year by year, and they only gave up the working of those cables to us in 1911. Now, the Anglo-American Telegraph Company published its accounts, and in 1911, which was the last year it was working, it paid 3½ per cent. on its ordinary, 6 per cent. on its preferred, and 1½ per cent. on its deferred.

778. Have you three classes of stock there?—Yes, the Anglo-American had three classes of stock.

779. I thought the preferred and deferred would be the ordinary divided?—No, they have got a curious arrangement. They had to raise money in the old days under difficult circumstances, and they have got a preferred stock which stands out paramount.

780. That does not appear to be a very extravagant dividend?—No. The Direct Company paid a 1 per cent. dividend with a bonus of 1 per cent., making 5.

781. Will you forgive me for asking—do I follow that these stocks represent cash paid down by shareholders, or is there any water in them?—I do not quite know. It is always a difficult thing to know what is meant by water and what is meant by whiskey. I do not know how far these accounts go back, but the original Anglo-American Telegraph Company was formed somewhere about 1870, and I do not know of my own knowledge or even by hearsay how its capital accounts were built up, but I should imagine there must be a certain amount of preliminary expenses and that kind of thing included in them.

782. Just another question. Suppose it were possible to arrange with you for a substantial reduction on the Pacific Cable messages, which largely increased the business carried over your lines, could you take 50 per cent. or 100 per cent. of the Pacific messages without inconvenience? Oh, yes, without the least inconvenience and without increasing our facilities for handling.

783. Without increasing your staff?—Not without increasing our staff—I mean without increasing our cable facilities.

784. So that the initial cost would be very trifling?—It is a large proportion of the operating cost, because, of course, one man can only deal with so many words an hour, and if you are going to give me double the number of words per hour I have to have two men to do it.

785. So that all you would require to pay extra would be the operators?—The operators and the attendant expenses. You have to provide more lighting if you increase your operators, and so on.

786. So that double the present Pacific business at the same rates would be very lucrative to you?—No, I do not think it would be very lucrative; it would be fairly lucrative if you were to double the full rate tariff.

787. What is the difference?—It is the difference between 10*d.* and 1*s.*, is it not?—No.

788. I am thinking of your own share of the 3*s.*, you know?—We only get 2½*d.* for the week-end cable.

789. I am speaking of general business. I am speaking of the division of the 3*s.*, and I understand that you or the other companies, the land lines in the United States, get 10*d.*?—Yes.

790. Is not that as good a rate as you get for your inland messages?—For my messages from here to America?

791. Throughout America.—That rate is a very good rate; I have no fault to find with that.

792. Does it not follow, then, if you had a very large accession of that business without a proportionate increase of expenses it would be quite lucrative?—If we could get it we would be very pleased to.

793. We are trying to reduce the Pacific rate with a view to increase, double or perhaps treble, the amount of matter sent across; but while you would be very

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glad to carry that, you cannot help us to cheapen it?—I should be very pleased if you could get it, because if you can get it, when you have got it, or anywhere near it, I will be very pleased to confer with you on the subject. I am very sceptical: you have to get it first.

794. There is only one other question I want to ask you, and it does not concern you more than any other company. In listening to all this evidence which we have had both here and in Australia with reference to the cost of cables, I have felt this, that people who use codes generally have their codes made up of words of ten letters as near as possible so as to get as much as possible in it?—Yes.

795. But people who send private messages and have no opportunity of using a code have to use just such words as are necessary in their message, and they may be sometimes of two, or three, or four letters. That, of course, creates a difference between them and the users of codes?—Yes.

796. Has it ever occurred to any of you to charge per letter or per five or ten letters?—Yes; but you see we get all this difficulty again, that directly you get a word that is not an ordinary word of a recognised language the operators immediately begin to make mistakes in sending it forward. If an operator has to send, we will say, such a message as "I will deliver 200 chests to-morrow," he can read that message, and he does not want continually to go back on to the manuscript from which he is reading, and he can reel the whole of that message off upon his instrument without any difficulty.

797. That is if it is plain language?—Yes, but directly you begin to make up a message into words of ten letters you begin to introduce difficulties.

798. I was rather thinking of counting the messages of private senders in letters rather than words: for instance, it is pretty hard for a poor person to have to pay 3s. to telegraph "to," and the equivalent of that might happen two or three times in a message if he has no code, and private people who send messages have no code?—As far as the Western Union are concerned we have got a code we supply in all our offices, and anybody who goes into one of our offices can make use of this code, and if he is sending it to one of the Western Union offices at the other end it can be de-coded there.

799. And you send that at the ordinary rate?—At the full rate.

800. What does that code of yours include which you have established for the benefit of your clients? Does that include all sorts of domestic messages?—I do not think I have ever studied it, but it is an ordinary code.

801. (*Sir Alfred Bateaman.*) I think you are rather more optimistic about the increase in cabling than our witness yesterday, Sir Henry Primrose?—I think perhaps, while I am expressing the views of the Western Union, I ought to say I am. The Western Union believe that the cables—and not only the cables, but the facilities of sending cables by telephone, and that kind of thing, are more or less the breath of life to the community, and our President is very strong upon that.

802. So that you can give further facilities without the fear of depleting your present lucrative business?—No, I will not say that, sir; we know we shall deplete it.

803. Diminish it a little?—We shall deplete our full-paid traffic, but what we hope is that as time goes on we shall make up both that full-paid traffic and that we shall increase very much the lower-rate traffic as well.

804. You say in your précis, and it seems to be rather pessimistic: "It does not anticipate that any increase in the amount of traffic which it might share with the Pacific Cable Board would have the effect of enabling it to reduce the Transatlantic portion of the rate." Any large increase such as doubling would, would it not?—I do not think so, because the traffic we carry for the Pacific Cable Board is only 2 per cent. of our traffic.

805. Is that 2 per cent. of your cable traffic?—Yes. So that if they were to increase the Australian traffic by 100 per cent., it would still only be 4 per cent., and we could easily deal with that.

806. Surely you have rather a large slice now, have you not, of the 3s. to Australia?—No, on the contrary.

807. What is it?—I have not the make-up; I take it from the honourable member that it is 10d.

808. It is more than 10d. on the full 3s. rate, is it not?—No.

809. From British Columbia?—The 3s. rate you are talking of is the rate to Australia.

810. And there is the Atlantic line to the Pacific; there are three portions?—Whatever we take there we take to Montreal; we only carry as far as Montreal.

811. You take 10d. to Montreal: from where?—From London or anywhere in Great Britain to Montreal.

812. And from Montreal to London?—Yes.

813. You get rather more for the distance than a proportion, do you not?—I do not know how the distance compares, but I should think not; the land line is not so expensive as the cable. Personally speaking I do not know much about the make-up of the tariffs, because it was before my time.

814. Do you contemplate that it is likely there will be another Atlantic cable, either an Imperial one or another private one?—I am quite sure that when we get near using up our existing capacity and we find the traffic increasing, we shall put down one if necessary.

815. How about a competing one—an Imperial one? There is the Pacific one which is a joint Imperial one and there might be a joint Imperial cable across the Atlantic: how would that affect your tariff?—I do not imagine it would affect it at all.

816. Of course if there was a reduction you would follow any reduction?—I do not think it follows that we should. Supposing they were to reduce their rate for one Atlantic cable they would pretty soon get flooded with business, and the other business has got to be carried somehow; they cannot carry very much on one cable. There are 17 cables working across the Atlantic now, and although one might be able to take some of the traffic, it would not take very much of it.

817. Have you considered that there will be the wireless competition still nearer?—We are not good at prophesying, any of us.

818. You think it is no good to seek to prophesy yet?—We like to prophesy when we know and we do not know yet.

819. (*Mr. Campbell.*) On the matter of these charges for cables and their allocation between the different companies, we have had it in evidence before the Commission that on a press message the Pacific Cable Board gets 3d. out of 7½d. for carrying the message from Australia to Montreal, and that the Atlantic companies get 4d. for carrying it the balance of the distance; is that correct?—I do not think it is. I am sorry to say I have not got the make-up of the messages here, I did not know that was a point which would be discussed.

820. You could not say decidedly about the allocation of the price of the message?—No.

821. You say that the Pacific cable business you get only constitutes 2 per cent. of your total traffic: what share of the Pacific Cable Board's business would your company get? Would you get half of it?—What happens is this. I cannot tell you what proportion we collect at this end; we collect, as Sir Henry Primrose told you yesterday, all the messages we can through our own offices here and we have got offices in the principal towns of Great Britain. The Post Office, I believe, hand 50 per cent. to us and 50 per cent. to the Commercial Company of the traffic they receive, and of the incoming traffic from the other side the Pacific Cable Board hand us 50 per cent. and hand the Commercial 50 per cent.

822. That would mean you get 50 per cent.?—Yes, roughly.

823. When you gave the figures I thought there would be some sort of arrangement in that way, and what struck me was that at present the Pacific cable is

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carrying half of the full load, at least that was the evidence of Sir Henry Primrose yesterday?—Yes.

824. If one half of the Pacific Cable Board's present business constitutes only 2 per cent. of your traffic, then the full load of the Pacific cable line would be only 1/12th of what your eight cables are carrying and your cables have a great deal of spare time?—Yes.

825. Can you explain why that discrepancy should come in?—Yes, quite easily. In a submarine cable, the longer the span of the cable from shore to shore the slower the transmission of the message, and it is most extraordinary (it seems a kind of arithmetical progression sum really), if you have a cable, for instance (as we have now) to the shores of Nova Scotia, and it carries a certain number of words a minute or hour, as the case may be, by cutting that cable in on the coast of Newfoundland and so shortening the cable and putting in what they call a repeater station at Newfoundland, and then transmitting the message again on to America you double the capacity of that cable.

826. That is to say, two short cables would have a very much greater capacity than a cable twice the length?—Yes. Another thing which has a bearing is the size of the core of the cable itself, whether you have a very thick piece of copper wire running through the centre as a conductor or whether you have a thin piece. No two of our cables across the Atlantic have the same capacity; they land in different places, some of them start from different places, and the core of each cable (I think I am right in saying, but I will not be sure) is different.

827. Roughly, on those figures we can show that the capacity of one of your cables is double that of the Pacific cable?—I should not like to put it like that. As I explained to you before, when you are talking about the capacity of a cable you are getting on to very dangerous ground.

828. I am speaking of the maximum safe load allowing for all contingencies of a possible rush of business, and allowing a fair margin?—I think then I cannot give the relation between our cables and the Pacific cables, there are such a lot of factors to come in. I think we should have a larger capacity, because we have the advantage of a group of cables, and directly you have a group of cables you get a larger capacity. They have only one belonging to the Pacific Cable Board.

829. Still there is a very great gain on the shorter cable, so far as capacity is concerned?—Yes.

830. We could make no deductions from the load of the Pacific cable?—No, it would want working out.

831. In sending a plain language message, does the cable company use its own code and send that message in code?—No, it sends the message as it is handed in.

832. Would it not be good commercial business to use a code?—That has been contemplated from time to time, but you must remember that there is the expense of coding it and de-coding it and the chance of error.

833. But it would very much increase the capacity of your cables?—I am told it is contrary to the International Convention.

834. Was there any reason why the International Convention should have objected to that?—That is in the wisdom of the International Convention. I am afraid I could not give their reasons for the decisions they come to.

835. But it would, as a matter of fact, enormously increase the capacity of the cables, would it not?—Not enormously, anyhow.

836. Perhaps I might put it in this way: What is the proportion of plain-language message to coded message in your business?—I am told that about 80 per cent. would be coded.

837. So that the plain-language messages would not be very material?—No.

838. (*Sir Rider Haggard.*) You told the Chairman about those week-end and night messages, and you also told him about the wonderful amplification and the great ingenuity shown with regard to codes when used in telegraphy?—Yes.

839. I think you have mentioned that by one of those amplifications as much as 100 words could be got into a single word?—I did not go quite so far as that; I said perhaps 70 to 100.

840. By means of a double code?—Yes.

841. Does it not strike you, under those circumstances, that the allowance made to the plain-language week-end and night messages is really not so great after all?—Yes, I think it is.

842. If I sent a week-end message: "Expect me " by the boat which sails after the 'Nubia'; I shall " arrive in London," and so on, that makes up 19 words, or whatever it may be, and there might be one code word which would say all that; and what I am submitting with respect is that after all the advantages are not so real as they seem to those who send in plain language?—I think you must remember, sir, that we are dealing (when you are talking of the non-coded telegrams) with about 20 per cent. only, and you must also bear in mind that the coded messages are all full-rate messages which go express all the way through. These other messages are subject to delays. The cost of the operating, of course, is rather cheaper, even with one code word, than it is with 19 ordinary words. On the other hand, you have a very large number of repetitions, that is to say, mistakes in a code telegram, which means sending the telegram twice over from its office of origin. You must also bear this in mind that when you come to the counting and to the collecting and delivery of the messages, the costs are the same; the message is a message, and has to be delivered, whether there are 19 words or one.

843. Excuse my interrupting for one moment. Do you have the system of posting week-end messages?—We either post or telegraph them.

844. The cost of posting is only popping it in a box?—And the penny postage.

845. Forgive my interruption?—I think that finishes it, sir.

846. You are not of opinion that on the whole these advantages given to these cheap plain language messages are more apparent than real, when you bear in view what you can send by means of a code message?—No, I think they are very real indeed, and I think that is borne out by the use to which the service has been put.

847. Do you think the cable companies might be disposed to do something in the line which Mr. Lorimer mentioned, that is to say, to allow these words to have a length of ten letters; for instance, somebody wants to cable: "The most of the letter," and you might get "The most of" into one ten-letter word?—I am afraid I should not like to give an opinion upon that. I do not feel sufficiently technical to be able to give an opinion, and in a case of that kind you have to make an arrangement which has to be fallen in with by the Governments at both ends.

848. I understand, and I do not want to press that. I will put it in this way: that it would not present any great difficulty would it, or cost, or make it very much more difficult to telegraph, to run such words as "The most of" together into one word?—Yes, it would add considerably to the difficulty of transmission, because if you are transmitting from here to Australia, say "The most of," that is quite intelligible to the telegraph clerk who is dealing with it, but if you divide that word up into "themo" or some such word as that, then by the division into another word it is making a kind of hieroglyphic.

849. But I did not suggest that; I suggested running the words together, not cutting them into lengths?—If you were to do what Mr. Lorimer suggested, as I understood his suggestion, it was to run them together so as to make conventional divisions with ten letters in each, and you would consequently be breaking up and regrouping your letters.

850. I quite see your point, although it is not quite the same as I had in my mind; I am obliged to you for your view on the matter. I gather that you look with a more cheerful eye on the possibility of cheapening telegraphic cable communication with distant



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places than did our esteemed witness yesterday?—I think that is so.

851. (*Mr. Tatlow.*) With regard to those week-end messages with Australia, which you seem disposed to encourage as far as you can, the facility you say you are inclined to go in for is earlier delivery?—Yes.

852. But you are not inclined to do anything in the way of the charge?—Not at present.

853. Have you considered at all that you could reduce the minimum number of words?—That is the same as reducing the charge.

854. Have you considered that?—Yes, and at the present moment we do not see our way to contemplate it. You must remember we have only had this going on for nine months, and we do not know where the service is to lead us.

855. If you were disposed to do that at the present moment, could that be carried into effect without the concurrence of the other Atlantic cable companies?—The Western Union is the only Atlantic cable company which gives the week-end service.

856. You do do things on your own account then?—Yes, we do; we and the Pacific Cable Board together have instituted this service and the other Atlantic cable companies have not.

857. And if you were disposed to reduce that minimum, it could possibly be done?—If we were well disposed to it and the Pacific Cable Board concurred.

858. (*Mr. Garnett.*) Have you contemplated making an inclusive charge, including the telegraphing of the week-end letter, which is now charged extra, from the terminal points in Australasia, or is that a matter which would come before the Pacific Cable Board?—That is a matter for the Pacific Cable Board.

859. (*Mr. Campbell.*) In reply to the Chairman you gave some illustrative figures of what might be done in the way of saving by means of coding messages, but could you give the Commission any figures as to the number of words that would be saved in ordinary coding by ordinary business people?—I am afraid I cannot.

860. You could not say whether it was 4 to 1 or 3 to 1?—No; such a lot of these firms have private codes of their own, and they go to an extraordinary expense. A firm will spend from 10,000*l.* to 20,000*l.* in making a code for themselves, because they know they are going to save that.

861. So that you really could not say?—No; we have lots of cases where we do not know how many words are included in a code word.

### Friday, 14th November 1913.

Sir JOHN DENISON-PENDER, K.C.M.G., Vice-Chairman and Managing Director of the Eastern Telegraph Company, Ltd., Managing Director of the Eastern and South African Telegraph Company, Ltd., and Director of the Eastern Extension Australasia and China Telegraph Company, Ltd., and Mr. WILLIAM HIBBERDINE, Traffic Accountant to the Eastern Telegraph Company, Ltd., the Eastern and South African Telegraph Company, Ltd., and the Eastern Extension Australasia and China Telegraph Company, Ltd., called and examined

862. (*Chairman.*) Sir John, I think you are Chairman of the Eastern Telegraph Company, Limited, the Eastern and South African Telegraph Company, Limited, and the Eastern Extension Australasia and China Telegraph Company, Limited—the three allied companies?—I am Vice-Chairman of some of them, and Managing Director of the Eastern, and have some authority in the others.

863. You appear to-day to give us information regarding the questions of policy, and Mr. Hibberdine will give us information on questions of accounts?—Mr. Hibberdine will deal with the traffic.

864. Perhaps the most convenient course would be if you would kindly read your statement or your letter to the Commission?—It is the letter beginning: "After paying a fair dividend"—

865. The letter of the 16th October first, perhaps?

*The witness read the following letter:—*

"The Eastern Telegraph Company, Limited.  
"The Eastern and South African Telegraph Company, Limited.

"The Eastern Extension Australasia and China Telegraph Company, Limited.

"Electra House, Finsbury Pavement,

"London, E.C.

"SIR, "16th October 1913.

"I beg to inform you that your letter of the 5th ultimo\* has been duly submitted to the Boards of the Eastern and Eastern Extension Australasia and China Telegraph Companies, and in reply I have to state that the policy of these companies on the question of cable rates to and from Australasia and other parts of the world has always been to reduce rates whenever experience has shown that the reduction is likely to produce sufficient new traffic to recoup the initial loss and cover the extra cost of working, and we cannot do better than refer you to the various Standard Revenue Agreements made with that object. The Standard Revenue Agreement of the 11th April 1900 is a case in point, wherein it is provided that the rates between Europe and Australasia shall be reduced automatically in accordance with the growth of traffic. The rates between Great Britain and Australasia were reduced from 1*s.* 9*d.* to 4*s.* in 1900, to 3*s.* 6*d.* in 1901, and to 3*s.* in 1902. At the end of 1902 an opposition cable

was established *via* the Pacific, the consequence of which was that any chance of a further reduction to 2*s.* 6*d.* provided for in the agreement was indefinitely postponed. It may be pointed out that had the interests in the two routes, *via* Eastern and *via* Pacific, been identical, the increase of traffic with Australasia would have automatically brought about a reduction to 2*s.* 6*d.* per word on the 1st January 1911, and possibly a year before that date.

"2. The Companies are prepared to meet the wishes of the Chairman of the Dominions Royal Commission, and have appointed as representatives to give evidence on their behalf myself and the traffic accountant to the three companies, Mr. W. Hibberdine.

"3. With reference to the statement that there exists a poor load factor on nearly all submarine cables these Companies desire to point out that the Eastern cables are in a totally different position to those of the North Atlantic, these latter cables being practically confined to the transmission of correspondence between the United States of America and Europe, almost the whole of which is, owing to the difference of time, transmitted within a very few hours of the day. The Eastern Companies have to transmit traffic not only between Europe and Australasia, the Far East, and South Africa, but also a large amount of traffic with Spain, Portugal, Azores, Gibraltar, Morocco, Malta, Greece, Turkey, &c. In some cases the cables are fully occupied during the whole of the 24 hours, and to maintain efficiency it is necessary to reserve a considerable amount of cable-carrying capacity to provide for interruptions and for sudden rushes of traffic.

"4. If there be no exceptional breakdown, it is possible with the present system of working for some of the cables to be closed during portions of the 24 hours. If, however, the cables were to be kept open, in order to carry traffic at unremunerative rates, the reserve capacity it is necessary to maintain against interruptions would be absorbed, and the general telegraphing public would suffer considerably in the carrying of their ordinary correspondence. It would also necessitate an increase of expert staff, which is not always easy to obtain, and the salaries, travelling expenses, housing, &c., of which would absorb any possible profit.

"5. With regard to the suggestion that there should be closer co-operation between the various cable and telegraph systems connected with Australasia, these



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companies have on several occasions stated that they are perfectly willing to more closely co-operate with the Pacific Cable Board, provided fair arrangements for both parties can be arrived at.

"6. With regard to further reductions for full rate messages, we would refer you to our remarks in the first paragraph of this letter, with reference to Standard Revenue Agreements.

"7. As regards deferred and week-end messages, we would refer you to the letters which we have addressed to the Governments of Australasia and South Africa on the 1st January 1913\*; unfortunately the suggestions of the companies have not been favourably received by some of the Governments concerned.

"8. The tariffs of these companies for press messages are already so low (*vide* schedule† attached) that any further reduction is impracticable. Besides which, an arrangement has been made with Reuter's Telegram Company for the circulation of an Imperial news service, which practically gives the news of the world to all communities in the Far East, both large and small, for a comparatively trifling amount. At places like Zanzibar and Mauritius, the actual cost to the inhabitants is well under a penny per word, and in South Africa and India the cost per word to each individual paper is well under a tenth of a penny per word.

"9. The reduction on deferred messages in plain language is one half of the charge for ordinary telegrams, and this is in accordance with the arrangements made between the various countries in the International Telegraph Union.

"10. As regards other improvements in the service, we are continually experimenting with new instruments, in order to increase accuracy and speed in the transmission of telegrams. We have recently commenced working direct between London and Alexandria, and we trust this long-distance signalling will be further extended to other parts of the system. In addition, the companies are continually spending large sums out of their reserve funds to increase the facilities for telegraphing, so that during the busy hours of the day merchants shall receive their messages with regularity and despatch. During the current year alone, the companies have spent, or will spend, an amount of almost two millions of money."

S66. Is that exclusive of new lines?—No, that is including the new lines which are now being laid.

"11. With regard to the route *via* Fao, commonly called the Turkish route, the tariff by this line has for 40 years been less than by the route *via* Eastern-Suez or *via* Teheran. At the Telegraph Conference at Rome, in 1871, it was arranged that owing to the inferiority of the Turkish route it should be allowed to have a cheaper rate than the other two routes. The actual amount of traffic carried *via* Fao is now about one-fourth of one per cent. of the total amount of traffic.

"12. The question of carrying day cable letters to the Far East cannot be contemplated and the companies feel strongly that deferred messages at half-rates give the public who send social telegrams every advantage that can reasonably be claimed.

"13. As to the suggestion that dictionary code words might be allowed in deferred messages, we would point out that this would do away with the basic idea of deferred telegrams, and would be equivalent to the reduction of all their tariffs by one-half, which is a proposition the companies are not prepared to entertain. It may be pointed out that the difficulty of deciding which are dictionary code words and which are not has been found from the experience of the past 40 years to be insuperable.

"14. With regard to the delivery of week-end telegrams on Tuesday morning, we beg to refer you to our proposal of the 1st January 1913, from which you will see that these Companies from the first advocated the delivery of these telegrams on the Monday.

\* This letter is printed on p. 16.

† Not printed.

"15. As regards South Africa, we beg to enclose a statement showing the receipts from this traffic since cable communication was established, from which you will see that although the company reduced the rate in 1903 to 2s. 6d. per word, the present receipts are more than 100,000l. less per annum than they were in that year, which was the first year after the Boer war.

"I am, &c.

"E. J. Harding, Esq., "J. DENISON-PENDER.  
"Dominions Royal Commission."

S67. I think if you would read the statement beginning "After paying a fair dividend"—Yes.

"After paying a fair dividend to their shareholders and giving the telegraphing public a share in the profits by reducing the rates, the policy of the Eastern and its associated companies has from their inception been to put as much surplus revenue as possible into the reserve funds, so that the original cables have been kept in a good working state by repairs and renewals, and funds have been provided for duplications and extensions.

"This policy has resulted in the cost per knot of the cables owned by the companies, as represented by the total capital expended (ordinary, preferred, and debentures), being reduced to the following figures:—

£

"Eastern and Eastern and South African Companies - - - - -	125
"Eastern Extension Australasia and China Company - - - - -	118

"as compared with similar amounts for other companies and administrations, viz.:—

£

"French Atlantic Company - - - - -	186
"German Atlantic Company - - - - -	233
"Great Northern Company - - - - -	202
"Pacific Cable Board - - - - -	217

"These figures represent all property of the Companies, including cables, ships, land, buildings, and instruments."

S68. That is the net amount in your balance sheet after writing this down; that is to say, you have been able to write down half the cost, apparently?—No, that is the total cost.

S69. That is to say, you laid them cheaper than the others?—Well, yes, some of them are cheaper and some may be dearer, but taking them as a whole, and the amount we have spent on them, and all that sort of thing, it has reduced them practically to this figure of 125l.

S70. The point I want to ascertain is this, whether that was your original cost which was lower than other companies, or whether you have reduced the amount standing in your balance sheet by subsequent writing down?—(Mr. Hibberdine.) Not the original cost; it is the actual amount at which the cables stand in our balance sheet; that is to say, it is not taking into account the amount of reserve we have in hand at all; it is simply taking the total mileage of the cables with the total amount of capital. (Sir John Pender.) Which at present exists.

S71. That has been arrived at by writing down from your profits, has it not?—(Mr. Hibberdine.) It has been arrived at by laying new cables and repairs out of reserve fund.

S72. It comes to the same thing?—Perhaps it does, (Sir John Pender.) "It is solely by this means that the companies I represent have been enabled to reduce their tariffs by increasing their carrying capacity out of surplus revenue. If any new line was laid to India, the Far East or Australasia, it could not live at the present rates on the capital that would be required to be raised."

S73. I would just like to ask you there: what is the cost of laying a new line per knot?—It depends upon the part of the world in which the cable is laid and the length of the cable to be laid. A cable of 1,200 miles compared with a cable of 2,400 miles could be laid at a very much smaller cost per knot for the same

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capacity. I think I may give you something which will show it; it is very much the same thing as a ten-knot ship being made as compared with a 12 or 14-knot ship; it begins to cube itself.

874. The increase of cost increases as the cube of the distance?—Practically it is so; the copper required is very much greater in the long-distance cable and the gutta-percha must, so to speak, have control of the copper. Therefore the gutta-percha has to be very much heavier, and the gutta-percha and the copper are the two most expensive parts of a submarine cable.

875. Therefore the shorter your sections the cheaper the cost?—Exactly, very much cheaper.

876. Will you now finish the statement you were reading?—Yes.

"In laying additional cables for increased traffic, it would have been less expensive for the companies to have laid the additional cables over the same routes as the original cables, as by so doing a great saving in the cost of staff, maintenance ships, and other expenses would have been effected, but in order to give as many distinct routes as possible, so that in time of war or political disturbance there would be less chance of total interruptions, the Companies have always followed the policy of duplicating and triplicating their cables by different routes.

"As an example, I may mention the route to the Cape *via* Ascension, which involved the opening of two new stations at Ascension and St. Helena, and an extra maintenance ship, whereas it would have been far less expensive for the Companies to have duplicated their lines between Aden and Durban, where stations already existed and a cable ship was already stationed.

"In the case of Australia, it would have been less expensive for the Companies to have laid duplicate lines between Madras, Singapore, and Port Darwin, than to have laid the cables from Durban to Adelaide, involving expensive new stations at Cocos, Rodriguez, Perth, and Adelaide, and the purchase and maintenance of a large additional repairing steamer."

877. Then I would ask you to read your letter to the Australian Government of the 1st January which you mention in your first letter?—(Mr. Hibberdine.) That is about the week-end telegrams?

878. Yes.—(Sir John Pender.) This is the letter of the 1st January 1913. (Reading the same.)

"The Eastern Telegraph Company, Limited.

"The Eastern and South African Telegraph Company, Limited.

"SIR.

"1st January 1913.

"In further reference to your letter of the 16th ult., and previous correspondence, I am directed to inform you that these companies have been in communication with the Secretary of the General Post Office on the subject of extending week-end cable letters to the Continent of Europe, and to state that it would then be necessary to have the same system of charging for all parts of the world.

"The Companies desire, if possible, to discontinue the present system of charging additional sums on week-end cable letters for outpayments beyond their cable stations, more especially in territories of such large extent as the Union of South Africa and Australasia, where it places the coast towns at a much greater advantage compared with those in the interior, and we understand this view is also taken by the Commonwealth of Australia.

"This would have the effect of reducing the number of prefixes to be transmitted to one only, which is very desirable.

"We should be prepared to recommend the Boards of the Associated Companies to agree to a scheme somewhat on the following lines.

"The charge for week-end cable letters to be on the following basis: five words to be transmitted for the charge of one ordinary word, such charge to include outpayments. For instance, between Great Britain and Australia the charge would be 3s. for five words, and out of the 3s. the Companies would pay the General Post Office the charge for one word, viz.,  $\frac{1}{2}$ d., and the

Commonwealth of Australia 5d. This would place the tariffs of the Government Administrations and the Companies on an equal footing.

"We should prefer a minimum of 20 words, which we consider is an easier charge to calculate than 24 words.

"We should also prefer to deliver telegrams on Monday instead of Tuesday, as we are afraid that before long artificial delay of messages at the station of destination will lead to abuses.

"The counting of week-end cable letters to be under the same rules as those for deferred telegrams.

"We may also inform you that we have made the necessary arrangements to introduce week-end cable letters with the Straits Settlements and Hong Kong, and will do so when the new reduced tariffs are put into operation, and that in October last we offered to introduce the system of week-end cable letters with India, and are awaiting a reply from the Indian Government.

"The minimum charges would therefore be as follows:—

	s.	d.	
" Union of South Africa	10	0	
" India	8	0	
" Straits Settlements	11	4	} Proposed reduced tariffs.
" Hong Kong	14	0	
" Australasia	12	0	

"We are sending similar communications to the High Commissioner of the Commonwealth of Australia and the Chairman of the Pacific Cable Board.

"I am, &c.

"W. HIBBERDINE.

"The Secretary,

"Traffic Accountant.

"High Commissioner, Union of South Africa.

"(Also to Commonwealth of  
Australia and the Pacific Cable Board.)"

879. What was the result of that letter?—There has been a good deal of discussion about it, but nothing definite has been settled; we hold different views. (Mr. Hibberdine.) A meeting was held at the General Post Office of all parties concerned, and since then we have heard nothing about it; there have been one or two letters.

880. Can you apply your proposals there without official sanction or not?—(Sir John Pender.) No, we cannot in all cases.

881. As to that particular proposal of yours, which seems a very satisfactory one to the public, is it impossible for you?—It is impossible for us, because, to begin with, we have to get the sanction of India to a certain part of it, and then we must have a general principle right away through.

882. As far as regards Australia, what prohibits?—We should have to arrange with the Pacific Cable Board; it would never do for us to be doing one thing and the Pacific Cable Board another.

883. Do you know at all if they are agreed on that proposal?—I think there is a slight difference of opinion between us as to the number of words. (Mr. Hibberdine.) A very strong difference; there are two differences of opinion. The Pacific Cable Board wish to retain the four distinct classes of traffic in the case of the week-end telegrams; we only want one. The Pacific Cable Board strongly object to deliver on Monday as we wish to do. (Sir John Pender.) And the number of words.

884. Monday and Tuesday is clear. What are the four different classes of traffic?—(Mr. Hibberdine.) At present a man can send from a cable office to a cable office; that is a direct message. He can send by post from all places in Great Britain to our cable offices and then by wire. He can telegraph from the Post Office by paying 6d. for the message to our cable office and then by wire. He can do one of those three things and wire out to Australia, and have it posted from our office in Australia, or he can have it wired from our office in Australia. There are four different prefixes:—T W T, for messages telegraphed all the way, including those delivered by Company; T W P, for messages telegraphed all the way to cable terminus and posted

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to destination; P W T, posted to cable station and telegraphed all the rest of the way, including those delivered by Company; P W P, sent by post to and from cable termini.

885. And you prefer to simplify and telegraph in all cases right through?—Certainly.

886. Do you consider that reform would be of great convenience to the public?—It would; it would be of great convenience to us and would simplify the work of our counter-clerks in dealing with the public.

887. So that it would be a benefit both to the transmitting companies and to the public?—Certainly.

888. Have you a map there of your lines to Australia?—Yes. (*Sir John Pender.*) We have maps\* which we can hand round which would facilitate matters (*handing in the same*).

889. It would be of use to us if you could explain in which way your Australasian traffic in each direction generally goes?—(*Mr. Hibberdine.*) The bulk of the traffic between Australasia and Europe passes normally *via* St. Vincent and South Africa; but as this route is liable to be temporarily interrupted in the land line between Cape Town and Durban, the route *via* Gibraltar, Egypt, Aden, Zanzibar and Durban is also used to a very considerable extent.

890. (*Mr. Lorimer.*) What are the dotted lines in the map?—(*Sir John Pender.*) Projected cables.

891. Are any of them under construction?—Yes, they are all under construction, and will be laid before May next.

892. (*Chairman.*) The interruptions on that route which involve sending by other routes are mainly on the land line in South Africa?—(*Mr. Hibberdine.*) On the land line, and that only temporarily, one hour, one hour and a half, or two hours, something of that kind.

893. Are you considering any means for diminishing or avoiding them?—Yes, we have made arrangements to put an extra relay station; we have one relay station between Cape Town and Durban at present, and we are going to insert an additional one. We have made arrangements with the South African administration to do that.

894. When those arrangements are complete the large mass of your traffic in ordinary times to and from Australasia will go round the Cape?—It may do, but of course we have other routes, and we divert the traffic in accordance with the circumstances of the day.

895. They are regarded rather as stand-bys?—No, most probably when our Aden-Colombo cable is laid we shall send the majority of the Australian traffic by that route.

896. That will be laid when?—In three weeks' time.

897. Then the Colombo to Penang line?—That is already laid.

898. Those are the two missing links of your Red Sea-Colombo-Penang-Australasian route?—Yes, there only remains to be laid after the Aden-Colombo line is finished one additional cable in the Red Sea, and the cable from Penang to Hong Kong.

899. So that, after that is done, and your land line in the Cape is also improved, you will have two very largely improved means of communication?—Certainly; we shall have two very good means of communication between here and Australia.

900. What can you tell us regarding the load factor on those lines?—With regard to the total capacity of the lines, or are you referring to the Australian line only?

901. I am not referring at all to the load factor on your Straits Settlements or Chinese lines or Indian lines.—It all affects the traffic.

902. I only wanted it brought in so far as it affects the Australasian question.—With regard to the question of the total capacity of the Durban-Adelaide-Perth-Cocos line, it may be pointed out that the only part of this line used exclusively for Australian traffic is between Adelaide and Cocos. The line between Cocos and Durban is used very largely in

the event of interruptions for traffic with the Straits Settlements, the Dutch Indies, and the Far East. Provision also has to be made for faulty cables, which although not actually interrupted, frequently necessitate a reduction in the normal working speed, and render duplex working impossible. Cases also occur when it is only possible to work in one direction. Two other important factors are lightning and bad weather. It also frequently occurs during the bad lightning storms which occur in the tropics that the cables at the stations where the lightning is most acute have to be put to earth often for some hours, and that causes diversion of traffic. As instances of bad weather preventing the repair of interrupted cables, we might mention that the Aden to Bombay two cables were interrupted for 74 and 57 days, in 1912, owing to the monsoon season.

903. (*Sir Rider Haggard.*) Broken, do you mean?—Yes, they could not be repaired because of the weather. Then we had one the other day outside Porthcurnow, where owing to bad weather the ship was standing by for 28 days before it could be repaired.

904. (*Chairman.*) Will you now go on?—With regard to the Durban-Cocos cable we consider that there is practically no spare capacity at the present moment as it is always liable to be called upon to carry a very large additional traffic owing to interruption in the various points I have already mentioned. One instance which occurred last December may be given: the line was worked up to the total capacity it could possibly carry for five or six days.

905. That is both urgent traffic and non-urgent?—Yes; that is to say, we sent 262,000 letters per day, or equal to a yearly amount of 300 working days of 78,000,000 letters, or 8,000,000 words. You asked a question with regard to the capacity of other routes between Durban and London. *Via* St. Vincent we have a capacity of 9,500,000 words, and between Durban and London *via* Aden and Zanzibar we have a capacity of 6,600,000 words.

906. (*Mr. Campbell.*) When the new cable to Colombo is completed that condition will be considerably altered?—Considerably altered, but naturally we find we are full up practically with our cables during busy times of the day, and therefore we have to spend this extra money to increase our carrying capacity.

907. (*Chairman.*) When you have the new lines going can you make a forecast of the amount of free available capacity which you will have either for urgent or non-urgent business?—I am afraid not; we do not think we have any too much capacity even when we have the Aden-Colombo cable laid.

908. In other words you consider your present load factor and your load factor when these new lines are completed satisfactory?—Satisfactory; we have a large margin, undoubtedly, but we want that large margin to give proper efficiency and in case of sudden rushes of traffic. Traffic does not come in regularly; there are not the same number of messages every day; some days the number is double what it is on other days—we have the wool sales in Australia or South Africa, for instance.

909. Your position is entirely different from that of the Atlantic Companies and also the Pacific Company?—Absolutely.

910. In the sense that you are not looking for non-urgent traffic in the same way that they are?—No; we take a certain amount of it which we can manage.

911. We would like to have your opinion on the question of modern ciphers and the amount of economy which they afford to the sender: what is the proportion of a cipher message compared with a plain language message?—(*Sir John Pender.*) It is impossible to say; a good code will almost work up to anything. I should say there is hardly any limit to what you can code. Long phrases now go as one word in a very efficient code.

912. Can you give any general proportion? We have heard various figures given, 6 to 1, 7 to 1, up, I think, to 70 to 1?—I should say certainly not less—I am speaking offhand, rather—but I should say certainly not less than 25 to 1. (*Mr. Hibberdine.*) It

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would depend entirely what traffic was affected. With Australia and India the codes have arrived at very great perfection. With European traffic the codes are not so perfect; consequently the proportion of words would not be so large.

913. We are principally now concerned with Australasia?—That would be 20 to 25.

914. Of course, this argument suggests itself, that if cipher reduces the number of words to  $\frac{1}{10}$ th, and if your plain language rate is only one-half of your deferred rate, you are treating your plain language sender ten times worse than you are treating your cipherer.—(Sir John Pender.) I think we may take into consideration there what the traffic is. Our plain language, our social traffic, is something under 5 per cent.

915. There I agree; however that again suggests the question whether that 5 per cent. is not more susceptible of improvement and development than the 95 per cent.?—I do not think it is, sir, for this reason—that a social telegram will be sent only if it has got to be sent. Take Australia. If a man sends a social message he sends it because he has got to send it, not because that message can be sent for a fourth or a tenth. I do not believe that he will send it if he is not forced. It is a different thing when you get inland rates of pennies to foreign rates of shillings.

916. Then, in your judgment, the reduction of cost would not develop traffic in these social telegrams?—No, we could not get down to such a low rate that social work would be material at all in our long-distance traffic.

917. We had evidence in Australia to this effect, that the high minimum for sending week-end telegrams was a considerable deterrent. I think when we were there the minimum was 15s.? (Mr. Hibberdine.) 18s.

918. And it was suggested that if your minimum number of words could be reduced, say, to a half, bringing the cost down to 9s. or 10s. there would be a very large development of traffic and a very great increase of social communication between Australia and the Mother Country?—(Sir John Pender.) I doubt whether there would, but if there was an increase and a very material increase, we might get our cables blocked up with work that was only paying us a very small proportion of what practically the total of our traffic pays now. It might interfere with the commercial traffic. We find that with the commercial traffic, if the merchant can get accuracy and reliability and speed, he is not so very keen about reduction of rate if he can get that.

919. I think it is only fair to say that in Australia there was only one opinion about your accuracy and your speed? They were satisfied with that?

920. I think so; there were complaints about rate. Everyone wants the rate reduced.

921. And there were complaints about minimum, but I think it is only just to your companies to say that we heard no complaints about either accuracy or speed? Thank you; I am glad to hear that, that is very satisfactory, but I am afraid with regard to rates, we have got no friends.

922. What do you say as to the result of the introduction of the deferred rate, which I think has been in force nearly two years, and of the week-end rate which has been in force some ten months?—I think we can give you figures upon that?—(Mr. Hibberdine.) As to the figures, we have taken out one or two days to get the percentage of the social compared with the commercial. Our idea of deferred traffic was that it would bring in the small merchant and the shopkeeper; it would not be much good for social people. I think our views have been confirmed by the actual facts. We find that with Australia the commercial work on deferred traffic is 92 per cent. of the whole; the social work is 8 per cent. We find that in South Africa the proportion of commercial is 72½ per cent. and the social is 27½ per cent. With regard to week-end traffic, we find that with Australia the social work is 17 per cent. and the commercial work 83 per cent. With Africa we find that the commercial work is 79 per cent. and the social 21 per cent. Now, with

regard to the deferred work, our idea is this, that social work does not practically exist where countries are very far apart, and also where there is no floating or temporary population. I think that view of ours is proved by these figures, and also by the figures of deferred traffic with India where there is a temporary white population.

923. By "temporary" do you mean tourist?—Oh, no; I mean the English officers, European merchants, and men who do not go out to reside permanently in India. But in Australia and South Africa they go to live. In India the proportion of the social on deferred messages is 44 per cent. as against 56 per cent. of commercial. I think our views, therefore, are proved by these figures.

924. We had similar figures from the Pacific cable, which may be of interest to confront with yours, in which they stated in the ordinary cables private was 6·43 per cent., business 93·57; and deferred ordinary, private, was 49 per cent., business 51. That gives, in fact, a much higher percentage of private?—It gives a very much higher percentage of deferred, but not of the ordinary; our percentage of the ordinary is about five.

925. It is similar to your experience in the case of ordinary, and much higher in the case of deferred?—Yes.

926. (Mr. Campbell.) Have you worked out your deferred messages in that proportion, or in calculating the proportion have you taken the whole volume of your business?—Simply the deferred. (Sir John Pender.) Will you allow me to say there is a reason for the difference in the figures which you mentioned. There is a reason why the Pacific cable should carry more deferred than we.

927. (Chairman.) What is that?—Because the Post Office inland system here hands all their undirected work to the Pacific Cable Board, and a great deal of the deferred work comes from the local telegraph offices all over the country. Therefore, all that would go to the Pacific Cable Board. (Mr. Hibberdine.) In other words, they get a much higher proportion of ordinary social work than we do.

928. I should like your opinion regarding the benefit of the deferred and the week-end rates. Are you satisfied with the development of the deferred telegram system, and of the week-end system?—(Sir John Pender.) We have a good deal of it, as the figures show, as commercial work, and the amount of social work being so small means that there is no necessity for it; we have never come down to a rate which would enable a social sender to spend any money over it. Then, of course, we are, and always have been since the very beginning, opposed to delivery on the Tuesday, for this reason; naturally when a message comes into our office at the week-end we send it as soon as we can; we get rid of it when the line is clear. On Saturday afternoon very often it comes; it is in the terminal office long before the Tuesday. A man may come on Monday morning and say, "You have a message for me from so and so; I am expecting it"; it may be about his wife being ill, or something of that sort. The answer I should have to give him is "Yes, it is in the office, but you cannot have it until to-morrow morning." We have had cases of that sort.

929. (Sir Rider Haggard.) That is a monstrous state of affairs.—I have always been strongly against it since the very first time it was started. We have to say to the man, "If you like to pay the full rate you can have this message." It puts us in an impossible position, and in many cases we have had to give it up, where it has been a serious case. (Mr. Hibberdine.) Another point is that we have to deal with the public in Great Britain; the Pacific Cable Board does not deal with the public. We are face to face with the public in Great Britain over the counters; we know what the public want. The Pacific Cable Board are not face to face with the public. (Sir John Pender.) In other words, the Government is stronger.

930. (Chairman.) There is nothing in those figures to disprove the contention that social traffic may be very largely developed by improving the expedition of

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the service and by reducing the minimum?—*Mr. Hibberdine.*) We have suggested reducing the minimum.

931. But only from 24 to 20?—With regard to week-end telegrams we suggested them in 1893 but we were stopped doing it by the British Government.

932. What is your view as to the reduction of the minimum from 20 to 12?—I do not think we ought to go below 20.

933. Can you give the reason?—It would bring in too many business telegrams. We must think of our shareholders as well as the social public, and you can see by the figures we have given you that there is an enormous amount of commercial work sent at deferred rate, and also in week-end telegrams.

934. Certainly, but that may also be new traffic although it is commercial?—A portion of it is new traffic; as I said just now a portion of it is from small tradespeople and small merchants.

935. Who would not send at the full rate?—That is so; they would not send their orders; they would give their orders to the agent and the agent would send them in his code. Now by means of the deferred and week-end they send them direct.

936. I think public opinion in Australia is rather impressed by the fact that since 1902 there has been no reduction of your full rate?—(*Sir John Pender.*) But then the reason for that is the laying of the Pacific cable.

937. The effect of laying the Pacific cable has been to keep up rates and not to reduce them?—(*Mr. Hibberdine.*) Certainly, that is our view. (*Sir John Pender.*) We can show it. There is the agreement which was made with Australia. If the traffic went by one combination at the present time the rate of traffic is sufficient under the agreement we made to bring that rate down from 3s. to 2s. 6d. at the present time. (*Mr. Hibberdine.*) We might give a very short history of the Australian rates.

938. Yes.—We made our first agreement based on standard revenue with Australasia in 1891 when we reduced the rate to 4s. a word. That was done in conjunction with four Australian Colonies, they bearing half the loss caused by the reduction. At the end of two years and a quarter, the loss was 27,000*l.*, and they decided to go back again to 1s. 9d. We went back to 4s. 9d. and there was no loss. In 1899 we wanted more accommodation, more cable capacity than we had. We had been negotiating to lay a cable by the Pacific; we did not see our way to do it because we wished to keep our cables more in our own waters through South Africa, and also in connection with India. We made another arrangement with Australia under which we agreed to reduce our rate on the first of January 1901 to 3s. 6d. It came down in 1902 to 3s. owing to the growth of traffic. Then the traffic of course left us and we used our new Australian cables for other traffic to a very large extent from the Straits, China, &c. If the Australian traffic had all passed by our lines, at the end of 1909 the average revenue would have been 327,000*l.* Now the standard revenue was 330,000*l.*, and there is no doubt that having received within 2,500*l.* of our standard revenue we should have reduced the rate to 2s. 6d. a word on the 1st January, 1910. The three years' average for 1910 would have been 339,000*l.*; therefore we should have been bound under our agreement to have come down to 2s. 6d. on the 1st January, 1911, probably, as we said, in 1910.

939. You have told us that it is impossible to contemplate the introduction of daily cable letters to Australia; can you tell us why?—It is owing to the difference in time over our lines. In fact, we are perfectly willing to admit that we could not carry the traffic we do now if Greenwich time existed all over the world. Naturally, on homeward traffic one traffic follows the other through our lines. On outward traffic the Australian has to be got through first because it is sooner day there than in other places, and the other traffic all follows in rotation after that; so that in a great number of cases our cables in the East are full up with local traffic, that is day traffic, when our cables on this side are empty; and the same the reverse way, our cables here may be full up, and the cables out in

the East may be practically empty of traffic during their night. To get day letters through we have got no vacant time at all.

940. In other words you have, roughly speaking, no peaks and no troughs?—No; we have to provide for booms of traffic and that kind of thing.

941. But your line is a level line instead of having high peaks and deep troughs?—Certainly; taken as a whole; that is, each cable has its own peaks naturally, but taking the line as a whole, we are level.

942. What is the reason for refusal of registered addresses for week-end cable letters? Because the Post Office were unable to deliver letters addressed to code telegraphic addresses.

943. You would be willing to see that done? Our proposal of sending everything by wire would overcome that.

944. I have only one further question: about the admission of dictionary code words in deferred messages, is it in your opinion impossible to have an intermediate stage between the complicated cipher and plain language messages?—We think so. I have a note about that. The experience of our companies in accepting messages in code words limited to dictionary words was that it was practically impossible to decide which were dictionary words and which were not in the eight languages allowed to be used, and the companies will object very strongly to have the difficulties that were then experienced with the public revived. You have no idea of the trouble we had at our counters with the public about deciding which were absolutely dictionary words and which were not.

945. What prevents your having an agreed dictionary? Because you have got to have an agreed dictionary for every language, and a man comes along and says, "This is an ordinary word." The languages are continually having new words invented. That was one of the difficulties we came to.

946. Would it be impossible for you to have an Eastern dictionary?—I think so; another point is that we do not want to bring in any code for deferred messages; that would simply mean that our rate would be reduced by one half at once, and we are not prepared for that. We are experiencing very great difficulty even with pronounceable combinations. A man will say "This is a pronounceable combination," and we cannot pronounce it. He will say, "You would pronounce it if you were a Pole."

947. The agreed dictionary would prevent that?—That was tried; we had an agreed code which was to be prepared at the International Telegraph Office at Berne. It took about seven or eight years to finish and publish and everybody thought it was going to overcome all these difficulties, but the Chambers of Commerce strongly objected to it, and it was brought up for consideration at the London Conference of 1903, and the Postmaster-General at the time, Mr. Austen Chamberlain, came down to the conference and said he could not allow that dictionary to be used because there was such strong opposition from the Chambers of Commerce to be bound by any set book. Therefore the result was that the conference recommended its use as having been prepared after five or six years or seven years of work, and it is simply now a recommended code by the International Conference. Of course I might remark that there is a great number of merchants who have spent 5,000*l.*, 10,000*l.*, 15,000*l.*, and 20,000*l.* in the compilation of their codes. These people have reduced their cost of cabling to a very small amount of money; it is less than a penny a word to Australia.

948. The class of sender whose case I am considering is the occasional sender of deferred?—We try to overcome that by having a social code compiled, and we keep now a copy of the Social Code, which is a fairly good code, at every one of our stations. A member of the public can go into any of our stations where we deal direct with the public and use this code; he can have the word "Social" sent free on the message he sends, and when we receive that message say, from Adelaide to London, we decode the message and deliver it to the addressee for him. Although that advantage has been put before the public, and we have

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advertised it, although our Chairman has mentioned it many times at the general meeting, and although we put advertisements in the papers, it is not used to any extent at all.

949. The sender has then to send at full rates?—He pays then full rates.

950. (*Sir Rider Haggard.*) Do you think the clerks at your various offices bring this social code to the notice of the senders of messages?—Oh, yes, undoubtedly.

951. Always?—I think so.

952. Because otherwise, the ordinary sender would know nothing about it?—We have cards put up in all the offices.

953. Such cards may or may not be seen?—My own experience at the stations I have been in on our own line is that it is advertised and the social people are told about it.

954. Your clerks are all instructed and given inducements to bring it to the notice of anybody sending a social message?—Certainly.

955. (*Sir Alfred Bateman.*) I have one or two questions about rates: I gather that there are two policies. You say that you reduce rates whenever experience has shown that the reduction is likely to produce sufficient new traffic to recoup the loss?—Yes.

956. And you have a standard revenue agreement under which rates were reduced automatically?—(*Sir John Pender.*) We have had several of those agreements, and they work very satisfactorily. In fact, taking one agreement which we made with the Indian Government some years ago by which the Indian Government undertook the liability of 44,000*l.* a year for 10 years, the total they paid on that arrangement for the 10 years was 26,500*l.* But they came in and helped us; that is a different thing. We take a share of the loss, and the Government takes the other share of the loss. That helps us materially.

957. But the result to the sender is a reduction?—Yes.

958. It is partly paid for by the company?—Yes.

959. The Government takes no liability?—Not in every case, because in some cases, for instance with the Cape, a reduction takes place only on a certain volume of traffic having been attained. Then it goes further: if it gets up to a certain amount which is recognised by both sides to be sufficient to fill a cable then there is a big jump in the next figure of the reduction because they take into consideration the extra capital required to lay cables to carry the work for another reduction. The cost of extra capital is also taken into consideration.

960. I wanted to ask you about the Australian rates; you have contended that if we had not a Pacific Cable Board you would have reduced to 2*s.* 6*d.* a year or two ago?—Yes, not only that: I go a step further, and I say that if there had been a working arrangement or a pool between the two companies I think it is quite possible then that the rate might have been reduced.

961. You mean the working expenditure would have been decreased so much?—No, I do not say the working expenditure, but it would have been in the interests of both then to work as one, and one could hand the traffic to the other and the other hand it to the one. It saves a sudden rush on one company, and the traffic works far more evenly. For instance, the Pacific Cable Board have been very fortunate in having no breakdown of their cable, but they have had breakdowns of their land lines across the Continent and without any notice we get that traffic thrown on to us at once. There is a delay all round then.

962. But if you had not had the Pacific cable surely you would have been overdone, because you have said also that very often you have got as much as you can do now?—Yes. (*Mr. Hibberdine.*) It would have meant that the Aden-Colombo cable would have been laid three or four years ago.

963. You would have had to lay another cable?—Undoubtedly.

964. Then that would mean an increased capital, would it not: you would want to get a large revenue

from that?—(*Sir John Pender.*) I do not think in the Australian agreement there was any arrangement for increased capital. (*Mr. Hibberdine.*) We have had two agreements with Australia and two with South Africa. With Australia our first standard revenue was 237,000*l.* Then we laid the Cocos cable, and the standard revenue was increased to 330,000*l.* to allow for the extra expense of laying the Cocos cable. Then if we had had any more need for capacity we should have had to lay the cable without any extra standard revenue.

965. But you do maintain you would have reduced the charge to 2*s.* 6*d.*?—(*Sir John Pender.*) We should have been forced to under the agreement.

966. As regards the charges in comparison with the Pacific Cable Board they are practically the same, are they not?—With the exception of the press. (*Mr. Hibberdine.*) The charges for the Pacific Cable Board now are the same for Great Britain and for some of the places on the Continent, but the Pacific Cable Board are cheaper to Canada and the United States than we are, and we are cheaper to France and many European countries. There is one class of traffic we have refused, at present at all events, to carry, that is deferred press. They carry the whole of the deferred press.

967. You are in competition—in a way—we found it in Australia, and in advertising your own advantages I suppose you claim the special facilities which you give?—We claim we are the best route, of course.

968. What do you claim you do better than they do?—One of the things we claim especially is that we have got more than one cable. We have four cables landed in Australia. The Pacific Cable Board have got one.

969. Only one other question. I did not quite understand as regards the length of cable: I think you said that the cost was increased—after a certain point I suppose?—(*Sir John Pender.*) No. For instance, when you lay a cable of 1,000 knots you can carry very much more traffic over that cable by putting 130 pounds of copper and 130 pounds of gutta-percha per knot into that cable. If you continued that cable to something like 2,400 or 2,800 knots you would have to put about 450 pounds of copper and 400 pounds of gutta-percha or something approximate to that; and it is a question then if that heavier cable would be of the same speed as the other.

970. But is not that advantage of the shorter length reduced by the increased terminal expenses?—You mean if you can cut the cable up you reduce the cost of the cable?

971. No: if you have a short cable and you have terminal expenses at each end—if you have a cable of 1,000 knots as compared with one of 2,000 knots—are the terminal expenses greater in the case of the short length of 1,000 knots?—It depends upon what traffic you can pick up on the way. If you can call at a place where there is traffic, then you can pay your office expenses.

972. The office expenses can be paid out of local traffic?—Yes, I mean if you get the local traffic; at St. Helena and Ascension, of course, there is absolutely no traffic to be picked up at all.

973. That is a dead loss?—Yes.

974. (*Mr. Campbell.*) Could you tell me what is your total traffic to Australia—the total amount of words constituting the Australian business?—(*Mr. Hibberdine.*) I think Sir Henry Primrose gave a statement of our traffic combined with the Pacific, both given together; we quite agree to those figures. The traffic *via* the Eastern last year was 2,000,000 ordinary words with Europe.

975. Your traffic was 2,000,000 words?—Yes, of the total traffic of 2,898,000.

976. Supposing you had had the volume of traffic that the Pacific Cable Board had (that is the contingency on which your reduction to 2*s.* 6*d.* depended), would you have been able to handle that with the Colombo line?—Certainly.

977. Then we could safely say that you have got a margin of somewhere about one-third?—In that case



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we should have laid our Colombo line three or four years ago; we are laying our Colombo line now for other traffic, more especially for the China, Japan, Straits, and Dutch Indies traffic.

975. When you were asked by the Chairman to give a possible margin, I do not think you gave any reply which was definite, but we can take it from what you have said that at any rate you will have a margin with the Colombo and Aden line of considerably over one-third of your present Australian traffic?—Yes.

979. Where you went into proportions of private business and commercial business, or commercial business and social business, in your messages, you included press messages as commercial business?—We treat press messages outside that; they are not included in these percentages at all.

980. What proportion of your business is press business?—I do not think I have got that figure; it is not a very large figure, at all events. (*Sir John Pender.*) We have not got it, but we shall be very glad to send it; we can have it worked out. (*Mr. Hibberdine.*) It varies, so that it would not be a fair figure to take if we had it only for one year. Press traffic is sent when there is news required. Press traffic is not sent when news is not required. That applies to homeward traffic from the Colonies, not so much to outward traffic. On outward traffic, if there is a steady demand for news, it goes; on the homeward traffic London papers do not want it unless there is something special.

981. Are press messages all plain language messages?—All plain language.

982. By the way, who are the parties to the International Telegraphic Convention which is mentioned here in one place as regulating the rates?—The parties to the International Telegraph Convention are every State in the world except the United States and Canada. There are one or two small States in South America which are not signatories; but Canada and the United States are the only important States that are not signatories, and they are not signatories because the interior telegraph lines belong to private companies, and not to the Government. The Postal Convention, which is on all-fours with the Telegraph Convention, the United States and Canada are signatories to.

983. Does that Convention fix the rates at which cable messages are sent?—The rates are arranged at each meeting of the conference; they can be arranged in between, but, as a rule, all alterations of tariff are fixed at these meetings, which used to take place every three years, and were then extended to five, and at the last conference, in Lisbon, they extended the period to seven. On that point there has been some discussion, I believe, as to the power of one or other route to reduce their rate in competition.

984. That is what I wanted.—I made a copy of the regulations in the Convention on that subject, and it reads as follows:—"Alterations of the charges or of the methods of application of the tariffs which may be agreed upon between interested States by virtue of paragraph 4 of Article 10 and Article 17 of the Convention, must have for their object and effect, not to create competition in charges between existing routes, but rather to open to the public as many routes as possible at equal charges; and the necessary combinations shall be so made that the terminal rates of the Administrations of origin and destination are the same, no matter what route is followed"; that is to say, the terminal administration on either side must have the same terminal rate for all routes. That is laid down as one of the obligations of the signatories, and that the total rate by every route shall be the same rate. If a new route is opened by any one of the signatories to the Convention, that must not compete; you must not have a reduced rate to the existing routes. In the same way, when the Pacific line was opened, under that clause they opened at the same rate as that of the Eastern Extension Company, 3s. a word.

985. Every party except the Canadian Government and the United States, in respect of their land lines, are bound by the Convention?—That is so.

986. And all cable companies?—We are bound; one of the clauses in all our landing rights is that we shall abide by and carry out the regulations of the International Convention.

987. In the case of making an agreement like this has that agreement necessarily to be submitted first to the Convention?—No.

988. That provides for reduction of rates?—You mean the Australian revenue agreement?

989. Yes.—At that time we were the only route to Australia; there was no one else to consider.

990. In the case of there being only a single route, you can reduce your rates as you please?—Certainly, if there is no one else.

991. In regard to paragraph 5 of your letter of 16th October, and the suggestion that there should be closer co-operation, you say that you are willing to co-operate; has there been a definite refusal from the Pacific Cable Board to co-operate?—(*Sir John Pender.*) Yes. I think at one time we got pretty near, but I think the Pacific Cable Board wanted more than we considered their fair proportion.

992. It has been a disagreement over terms?—It was a disagreement on the terms. (*Mr. Hibberdine.*) We are carrying on ordinary traffic, two-thirds of the Australian traffic, and the Pacific one-third, and we wanted naturally to base our agreement on the basis of the actual traffic being carried. They wanted half and half. I think that difficulty might have been overcome, but there was a very strong feeling, and is now, I believe, in Australia, against any arrangement being made between the Pacific Cable Board and ourselves. As far as we are concerned, we have not asked for an arrangement; we say it would be a benefit, but the people it would benefit most would be the Pacific Cable Board, because they have one line, and if they are interrupted they would lose all their revenue. As far as we are concerned, we have several lines, and therefore, if we are interrupted, we do not lose our revenue.

993. Are week-end cables *via* the Eastern delivered in Adelaide on the Tuesday?—They are delivered in Adelaide on the Tuesday.

994. It is the same thing really with the week-end cables *via* the Pacific?—Yes.

995. What is the origin of that preposterous arrangement? Who made it?—(*Sir John Pender.*) It was made simply because it was considered that week-end traffic might interfere with the other traffic if it were made too fast a service. It was giving a great consideration to give the reduced rate for it. It was done for the social sender, and not for the commercial sender, and there was a fear of the commercial sender taking advantage of it. That is really the bottom of it.

996. I think, in reply to Sir Alfred Bateman, Mr. Hibberdine, you said your charges from France were cheaper than the Pacific Cable Board's charges to Australia; is that so?—(*Mr. Hibberdine.*) That is so.

997. Is no advantage taken of that in sending messages to France?—We obtain most of the traffic between France and Australia naturally.

998. What I mean is, is there no advantage taken of that in England by sending messages to France and having them cabled from France?—I am afraid you have misunderstood me. By our line the charge from Australasia to France and to Great Britain is the same, but the Pacific Cable Board's rate to France is higher than ours because they carry the message to Great Britain and then there is the extra payment from Great Britain to France, whereas we have our own cables to France at Marseilles, and we deliver messages direct to the French Government, and we are able to charge the same rate as to Great Britain.

999. What is your charge from France to Australasia?—3s. a word the same as to Great Britain.

1000. (*Sir Rider Haggard.*) You were telling us about certain proposals which your Company made, which would have had the effect of very much simplifying and reducing the cost of these week-end messages, which proposals I think you said were made in January?—January 1st 1913.

1001. Can you tell us why they were not accepted, being, if I may say so, obviously so admirable, and so



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much to the interests of the general public?—The great objection was to a five word charge.

1002. By whom?—Our proposal was to charge so much for five words, that is to say, we thought it was a simple way of working it, taking Australia for example, to charge 3s. for every five words, or in other words to give five words for one full rate word. Now most of the people thought it was better to give a word rate pure and simple at one fourth of the full rate.

1003. Excuse my interrupting: Whom do you mean by "most of the people"?—The Post Office; we had a meeting at the Post Office.

1004. Do you mean the officials or the representatives of other parties?—The representatives all together and principally the Pacific Cable Board.

1005. That is what I wanted to know.—As part of the negotiations we gave up our suggestion to charge five words for one and agreed to charge one fourth rates.

1006. You were overruled on the matter of the five words?—Yes, we wanted to make a compromise and we compromised upon that. That is one of the points we compromised on. We have not compromised yet on the "Tuesday" or the delivery direct to the receiver.

1007. Am I right in understanding that practically on the motion of the Pacific Cable Board those suggestions were overruled?—I should not like to say that.

1008. My colleagues and myself do not quite understand you; first you said the British Post Office and then the Pacific Cable Board?—I would rather you asked the Post Office for this evidence.

1009. I am afraid I must ask the question?—The Post Office had a meeting at which the Secretary of the Post Office took the chair and there were certain minutes made. I think if you had those minutes before you they would give you the particulars of the discussion which took place.

1010. Am I to understand you would prefer to answer no further questions on that point?—It is a matter which is under discussion at the present time; therefore it is *sub judice*. One does not like to answer questions when a matter has not been settled.

1011. May I ask is it under active discussion or is it in a state of suspended animation?—(Sir John Pender.) I am afraid the latter. (Mr. Hibberdine.) We wrote to the Post Office on the 14th October last and we are waiting a reply to that letter.

1012. Of course a month is not long to wait for an answer, but —?—I may say I have written a private letter to one of the assistant secretaries of the Post Office.

1013. A private letter?—A semi-official letter. I wrote to ask him when we should have a reply to our official letter.

1014. (Chairman.) Could you read us your official letter?—I do not think I had better read it; it is putting certain proposals forward to the Post Office, more especially about Australia and South Africa, to know if they agree with them. I may say the Post Office were particularly liberal, I think, in coming forward and agreeing to accept under a farthing a word on all week-end telegrams which were handed over to them.

1015. (Sir Rider Haggard.) If you do not feel at liberty to read to us this letter could you tell us as nearly as you think proper its substance?—(Sir John Pender.) I think it is a suggestion—there is a difficulty about this—it is a fresh suggestion which may be under consideration with the Post Office or may not, but we have not yet heard—we have had no answer to the letter.

1016. I cannot press you further, but I might put this question to you: are we right in understanding that so far as you are concerned you are both willing and anxious to simplify this week-end telegram business to the advantage of the public?—(Mr. Hibberdine.) Undoubtedly.

1017. And that it is no fault of yours, whose ever fault it may be, that this has not been done?—Certainly

1018. Might I put one more question on that point; have not you it in your power to do it yourselves, and if you did do it would not the result of that be to oblige everybody to follow suit?—We do not wish to bring in week-end telegrams unless we have a definite set of regulations. We do not want to start week-end telegrams with several places unless we know for certain what the regulations are to be. As we cannot have these regulations unless the Government give their consent to them, we have got to wait until we get that consent.

1019. You must have governmental consent?—We should not like to do it without the Government consent.

1020. You have not it in your own power to make your own regulations about it?—I do not think so.

1021. Therefore it comes to this, that here you are anxious and willing and you are depending upon Government consent to carry out these operations; is that so?—That is what it amounts to officially. (Sir John Pender.) May I add this; we have other traffics. The Pacific Cable Board have only got their own traffic from point to point. We have traffics all over the world. Therefore whatever arrangement is come to we have to consider the different parts and different rates, whereas they have only to consider the two points. We want to arrange some uniform basis so that it would be an adequate arrangement for all the different places we go to. That is really the truth of the matter.

1022. Perhaps I might put a supplementary question on this: Have you any reasonable prospect of these emendations and beneficent alterations being carried out at an approximately near date?—(Mr. Hibberdine.) I think we have.

1023. One more; at present I understood one of you gentlemen to say that very hard cases can arise under the existing regulations—I mean with reference to the fact that actually you may have, in a case of life or death, a cable in your office, and may not be able to communicate that cable to the unfortunate recipient?—(Sir John Pender.) That is the case.

1024. In your opinion, does not that amount, or may it not amount, in certain cases to a positive cruelty?—Remember this, that the applicant coming for that telegram can get his telegram if he chooses to pay the full rates.

1025. I repeat the question putting it in this way. Supposing that applicant is not in the position to find several pounds to pay the full rates, would it not be an actual cruelty?—I quite agree with you; we do not like to be in the position. It is really this; it is a case in which the Government are powerful enough to do it; we as a company are not. That is really the bottom of it.

1026. I only wanted to know the facts.—(Mr. Hibberdine.) In one or two cases of that description we have delivered them on Monday and taken the risk.

1027. May I pass on; I just want to ask you a question or two about South Africa. Could you tell us now any details as to your South African traffic and as to the history of the cable rates?—When we opened with South Africa there was a very small business. We opened in December 1879 at a tariff of 8s. 9d. per word, and that was carried by cable from Aden to Zanzibar and down to Durban, first calling at Mozambique and Lourenço Marques. The first year's traffic only yielded 68,000l. Then there were disturbances in South Africa and we went up to 112,000l. Then we went down to 90,000l.; we gradually rose bit by bit to 1888 when we had 167,000l. of traffic. In 1889 the goldfields were discovered and our traffic rose at once by 100,000l. to 262,000l.—there was a boom. It went down again for a few years.

1028. At the same rate of 8s. 9d. or whatever it was?—Yes, it went down in 1894 when we were earning 207,000l. a year. Then on the 1st April 1895 we reduced our rate to 5s. a word and we opened the new cable from Loanda to Cape Town to give an alternative route and to prevent as far as possible total interruption of communication. In 1896 the

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traffic was 360,000*l.* and it went down to 278,000*l.* and 265,000*l.* in 1897 and 1898; naturally when the war broke out, and there was a large amount of Government traffic, it went up very largely, to 383,000*l.* in 1899 at the rate of 4*s.* a word. In 1900 we earned the highest revenue of any at that rate, 451,000*l.*

1029. That was because of the war?—Yes. In 1902 we earned 463,000*l.* at 3*s.* per word. That is when the war ceased. The effect of these large increases was to bring our tariffs down; we made the standard revenue agreement in 1901, and the tariffs came down to 3*s.* 6*d.* in 1901, 3*s.* in 1902, and 2*s.* 6*d.* in 1903. The first complete year of the 2*s.* 6*d.* rate when the Boer War was altogether over gave us 389,000*l.*

1030. At half-a-crown?—Yes. Since then there has been a steady decrease, 363,000*l.*, 326,000*l.*, 304,000*l.*, 252,000*l.*, and 238,000*l.* In 1909 we went up again to 287,000*l.* and in 1910 to 290,000*l.* and last year (1912) we were down to 278,000*l.* As we stated in our letter we have over 100,000*l.* less revenue at the present moment than we had in the first year of the half-crown rate.

1031. I suppose you attribute that rather to local depression in South Africa than to anything to do with the rate?—Undoubtedly, local depression.

1032. That is how it stands at present—a 2*s.* 6*d.* rate and a falling revenue?—Yes.

1033. Does the system of week-end cable letters and deferred telegrams apply to South Africa?—Certainly; we brought it into operation with South Africa before Australia.

1034. In fact they have any advantages that are to be had now?—South Africa has exactly the same advantages as Australia in every point.

1035. (*Mr. Bowring.*) There is a route to Australia by way of Fao, is there not?—Yes.

1036. Will you tell me, does the Eastern control that route entirely?—No, we do not control any part of it. The history of the Fao route is rather a peculiar one. It was the first route ever opened between Europe and India, in 1865 the Indian Government wished to get into telegraphic communication with Great Britain and the Indian Government laid a cable from Kuraebi up the Persian Gulf to Fao; the Turkish Government made a land line from Sentari on the Asiatic side to Fao to meet it. That route never worked satisfactorily. I have known a message go through in four or five hours, but the average is more like two or three days.

1037. (*Mr. Campbell.*) What is the cause of it?—Bad working on the Turkish lines; Asiatic operators are not the same as European operators.

1038. (*Mr. Bowring.*) That is on the Turkish land lines?—Yes; the result of that was that the Teheran route was opened through Persia in 1868, and our route to India was opened in 1870. The Turkish route had been working at a very cheap rate, and at the Conference of Rome in 1871 2, the Turks asked that their route might be cheaper than ours. They said: "It is no good our competing against you at equal rates, we should get no traffic at all; if we have a cheaper rate we might get some traffic." It was discussed for over a week at the Conference in Rome, all the Government officials being present, and it resulted in the Turkish route being allowed to be a cheaper route. That is contrary to that regulation I read just now, but it was specially allowed by the Conference that the Turkish route should be cheaper than the route *via* Teheran or *via* Eastern, and it has remained to the present day.

1039. I understand the rate by way of Fao is 2*s.* 9*d.* against 3*s.* by your route or *via* the Pacific?—Yes.

1040. Can you tell me what traffic the Fao route does?—It takes about a quarter of 1 per cent.

1041. On account of the detention mostly?—Yes, that is of the Australian traffic; the Indian traffic is slightly higher.

1042. Are we to understand that the detention of the deferred messages at the offices is only caused by the Pacific Board insisting upon it?—Do you mean the week-end telegrams?

1043. Yes.—I would not like to say "yes" to that.

1044. Are you only waiting their assent to deliver them earlier?—We are waiting their assent and we would deliver them earlier.

1045. And directly you have that I think you would deliver them as early as you could?—If we had an official letter from the British Government saying they ought to be delivered on the Monday morning, we should do it at once.

1046. And you would be glad to do it?—Certainly. (*Sir John Pender.*) I would like to add that we have had a meeting with the Post Office, and it was not only the Pacific Cable Board; there was a general feeling with all the companies concerned, the Atlantic companies and all, that those messages should not be delivered before the Tuesday. (*Mr. Hibberdine.*) The Atlantic companies began the first week-end telegrams, and they delivered them on Tuesday. We followed suit. As soon as we began delivering on Tuesday, the Atlantics altered their practice and delivered them on the Monday. (*Sir John Pender.*) The Pacific Cable Board are strongly opposed to the Monday.

1047. I think now the Atlantic Companies deliver them practically as they get them, to get them out of the way?—Yes.

1048. There has been no pooling agreement between the Pacific and Eastern to Australia?—No.

1049. Except on rates?—Yes.

1050. Your rate was not reduced to 3*s.*, I think, until the Pacific cable was talked of?—It was reduced 11 months before the Pacific cable was laid.

1051. When it was arranged to be laid though?—That I do not know; we had made the agreement about the sliding scale before it was agreed to be laid.

1052. And under your Standard Revenue agreement you would have reduced your rate, whether the Pacific cable had been laid or not?—Certainly.

1053. If the Pacific cable had not been laid you would have given a further reduction on account of greater revenue?—We should have had it down to 2*s.* 6*d.* for a certainty.

1054. Can you tell me if there is much difference in the speed of transmission between the long-distance cables and the short?—There is a very great difference, and I can give you an example of that. On our fastest cable from Great Britain to Vigo we can send as much as 400 letters a minute.

1055. What distance is that?—About 500 miles. Our slowest cable is the comparatively small core one between Aden and Zanzibar, and we do 100 letters a minute there.

1056. What length is that?—About 2,000 miles. That, of course, would be modified again by the size of the core of the cable. For instance, the cable between Rodriguez and Cocos is about 2,200 miles, and we do 140 words a minute on that. (*Sir John Pender.*) The capacity of the cable is totally different.

1057. Increased by the core, you mean?—(*Mr. Hibberdine.*) By the size of the core, the amount of copper.

1058. The larger the core = ? The greater the carrying capacity.

1059. Apparently you have found out by experience that business men are very willing to pay long prices for speed, and that they would sooner continue to pay higher prices than have any reduction in the speed?—The large merchant would certainly prefer to pay the higher rates, and not bring in the smaller merchants. (*Sir John Pender.*) But over and above that, if you put it to a man, "If I can give you an indifferent service at such and such a rate, or a first-class service at such and such a higher rate, which would you prefer?" the big merchant would take the good service at once. He wants a reduced rate, but naturally he would insist on the same service at the reduced rate.

1060. The speed is more important really to a business man than cost?—Speed and accuracy. (*Mr. Hibberdine.*) Accuracy comes first.

1061. They are willing to pay for speed on cables much the same as on steamships?—Yes. (*Sir John*

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*Pender.*) Yes, although, as I say, that is modified in this way, that they know we will give them the same efficiency at the lower rate, and therefore they are always crying for the lower rate. If they do not get efficiency, they come round to our office, and there is trouble.

1062. Is there any means known at present of still further speeding up cables?—I will not say there is not. We have increased the speed of our cables, some of the old cables very materially, in the last few years, and at the present time we are working direct to Alexandria, and it not only increases the speed, but what is perhaps just as valuable, it reduces many chances of error. Every time a message is transmitted it is liable to error, and if we can work to Bombay with one transmission, instead of, as we used to have years ago, perhaps five, it will make a very material difference, and we are taking all that into account.

1063. Are you deterred in any way by the cost of those newer speeding-up arrangements?—Never.

1064. Cost does not enter into that; you adopt the very latest and most approved system?—At any cost we keep our lines efficient.

1065. And you adopt the most modern methods in every way?—In every possible way.

1066. (*Mr. Garnett.*) May I just ask you one question with regard to your statement about the laying the Pacific cable preventing the reduction of rates. Is it right to draw the general inference that there is not a sufficient amount of work to go round for both companies, and that if both companies have to be run on commercial lines, that circumstance militates against this reduction, which you think would have come if the Pacific cable had not been made?—Certainly.

1067. You mentioned the fact that you have a Social Code, and that anyone desiring to avail himself of that code has the opportunity of being informed about it at your various offices. May I ask if those facilities equally obtain, say, at little post offices in the country?—No, because that is a Government matter. If we could show anyone how he could send a telegram at a reduced rate, we should always do it, and so would our staff in any part of the world, and not try to get more money, in fact in many cases when a man has come in we have suggested this code.

1068. I quite follow that, but I am thinking of a man who perhaps has to telegraph to Australia, as I do myself sometimes on social matters, from a small country town. I have constantly telegraphed in that way. It is my own fault no doubt for not having made myself acquainted with the facilities you give, but in the post offices they do not indicate that there is anything of the sort?—The post offices have not got a code. (*Mr. Hibberdine.*) We asked them to have them, and they pointed out that there was such a large number of offices that to have a code at each office would be practically impossible, and not only that, but it would be impossible to instruct some of the country postmistresses to explain the code, which is somewhat technical and difficult to carry out.

1069. Then in practice it does come to this—that this Social Code is not very largely used, and it can hardly be used at all, unless the individual who wishes to cable is within reach of your own office?—Or unless he has made a previous arrangement with us. He can send the message to us by post, and we will send it on for him.

1070. Do you think these facilities are generally known?—(*Sir John Pender.*) I do not say they are. We do our best. I do not say they are generally known all over the country, but the class of traffic is curious, because if a man knows he has to communicate with Australia over any period, he will perhaps look about and seek for a book; he may make inquiries in that case, but as a rule in this class of traffic the man does not know that he is to communicate with Australia, he does it in a hurry, and then he does not make any special inquiries (very likely he has not time) as to the cheapest plan.

1071. Having regard to the enormous distance from here you would agree that it would be desirable

that this knowledge should be spread as widely as possible?—Yes, we do all in our power to give every facility without taking very much off our carrying capacity.

1072. But there is no obligation on the Post Office to give any information at all?—No.

1073. Did you ask the Post Office about this matter?—(*Mr. Hibberdine.*) Yes, we did ask the Post Office, and they said it was impracticable to do it, and we agreed with them that it would be.

1074. It is not a thing you could reasonably ask them to do?—No.

1075. One or two questions with regard to the press: have the reductions in recent years very largely increased your press traffic?—No. We have made very large reductions for the press. We took 3½d. a word between coast and coast, between our stations in Great Britain and the coasts of Africa and India, and the result was that we expected to have a large traffic, but, as a matter of fact, we have about the same traffic as before. Egypt is in a peculiar position, because in Egypt you have a large population in the winter time which wants European news, and therefore it is sent out to them. The reduction from 1s. to 3½d. is an enormous reduction. In South Africa the reduction from 1s. to 3½d. has resulted in a traffic which was 880,000 words being reduced to 380,000, but that is not a fair way perhaps to put it. The real reason of that reduction is, that there was competition among the newspapers and instead of one news service serving the whole of South Africa, as it does now, for some three or four years there were two services both sending the same news and both paying us. We carried the traffic, but we would much rather have carried only one service. The same thing is taking place in Australia at the present time. For years in Australia there was only one service, that of the "Melbourne Age." Now there are two services, and consequently the Australian press traffic has almost doubled, simply because the newspapers are competing against one another, and that has nothing to do with the reduction of rate.

1076. Making allowance for the fact that there are two services, is it your experience that in the bulk the amount of press news transmitted from this side to Australasia is on the increase or not?—Of course when you say "the bulk" you mean the actual news sent?

1077. Yes.—I should not think it is increasing very materially; it may have increased because of competition, that is to say, they both now send rather more than they did before.

1078. But the amount of news transmitted is not in proportion to the facilities or reductions you give?—No. One example I can give you. We have what we call an Empire Press Service, and we have to serve with news a great number of small places among the dominions. We give it for nothing at Ascension, and for a small sum at St. Helena, Zanzibar, Seychelles, Mauritius, Egypt, Malta, and Gibraltar. That news used to be sent in very small telegrams. Now we have one news message sent continually all day long. Reuter hands us in batches of 20 or 30 words at a time which goes off and that one message goes all round our system, and is delivered at 30 or 40 places. We can afford to do that very much cheaper than having our line blocked up to a large extent with a number of small messages being sent to different places. Australia would not take that message; we offered to send it from Durban to Australia for 2d. a word extra, but they preferred to have their own service.

1079. I notice there is a difference in press rates. Those between Australia and New Zealand and South Africa are nearly twice those between Australia and the United Kingdom?—Yes, that is specially between South Africa and Australia. The International Convention lays it down that the press rates shall be half the ordinary rate, but they give us a free hand to make any special arrangements we like, which we have done everywhere. There has been no demand for any news between South Africa and Australia. Therefore, the international rate remains at half the rate. But

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we have already offered to take a rate of 2*d.* a word between Durban and Australia provided the Australian Commonwealth will take 1*d.* a word as they do on British traffic, but we have had no demand and nobody wants to use it. If anybody came along and said, "We will send so many thousand words at different times of the day between South Africa and Australia," we should take 2*d.* a word at once. We have made the offer and we stand by it.

1080. Just one other question. I do not know whether it is one you can answer. Do you find from your experience that there is any growing interest in the affairs, say, of Europe generally, and this country in particular, growing up which demand a better news service?—I should not like to give an opinion upon that myself; it is a matter which a newsagency would be able to feel the pulse of the people about much better than we could. (*Sir John Pender.*) I think we might answer that in one way—that there is a certain amount of news sent every day, and if there is more interesting news to go a certain proportion of that other news is dropped. As a rule if there is important news, news that is not so important is dropped out. (*Mr. Hibberdine.*) And if there is any very important news they will have it, of course, whatever the cost is, and we can give you an example of that. In the case of the first cricket matches played in Australia one of the newspapers found out the urgent rate of 9*s.* a word and they made a scoop the first day because they had the news in their morning edition; the next day all the other papers did the same and they stopped it, and the company were very glad, because we had the whole of our ordinary traffic stopped for that day.

1081. The reason I ask the question is that while we were in Australia, events of the very utmost importance affecting the peace of the whole world were happening in Europe, and certainly the amount of news received about them did not enable us to follow intelligently what was going on.

1082. (*Mr. Tallow.*) Is that automatic arrangement by which the charge for the ordinary telegram would be reduced when your revenue reaches a given sum still in existence?—Yes.

1083. Is it to continue for a certain number of years?—There is practically no limit to the number of years. Of course, we are a very long way off it now, naturally.

1084. Is the Australian business increasing—your share of it?—Yes. I can give you the average of three years' figures. In 1909 our revenue was 209,000*l.*

1085. What was it last year?—238,000*l.*

1086. It will be a long while before the 330,000*l.* is reached?—By our line, certainly.

1087. With regard to the week-end messages, your proposal was five words for 3*s.*?—Yes.

1088. That is a considerable reduction on the present charge?—Pretty much the same; it is 9*d.* a word at present.

1089. It is about 7*d.* a word, so that it is a fairly substantial reduction?—Yes.

1090. But you were overruled as regards the suggested five words arrangement?—We found they all objected to that—everybody; we were the only ones who supported it.

1091. They preferred the charge per word?—Yes.

1092. I suppose it is still quite clear that you are willing to make a reduction, if others are, in the charge per word?—We are ready to have one word for five, that is one-fifth rate.

1093. If you are willing to allow 7*d.* under that arrangement would you not be willing to have 7*d.* under the word arrangement?—No, because with a charge for five words we get a certain profit on unused words; that is why we charged one word for five. If we charge a word rate we want a one-fourth rate.

1094. Each five words would stand by themselves?—Yes.

1095. I am glad to make that clear; I see the difference now. I suppose there is no practical difficulty whatever about delivering all messages on the Monday instead of the Tuesday?—No.

1096. With regard to the suggested pooling arrangement between you and the Pacific Cable Board, it fell through at the time you said?—Yes.

1097. They wanted something more, and you wanted to base it on the actual traffic carried for a certain number of years?—Yes.

1098. Do you not think it quite natural for a new company in such an arrangement to seek something in the way of prospective advantage?—We were willing to give up a certain amount. (*Sir John Pender.*) That is some years ago now. We are prepared to go on the same basis to-day. They have had four or five years' experience altogether, now.

1099. If the countries concerned in the Pacific cable were willing to agree to some pooling arrangement you do not apprehend much difficulty in coming to a solution with regard to the percentages?—I do not think so. (*Mr. Hibberdine.*) The real reason it fell through was the opposition in Australia.

1100. (*Chairman.*) Public opinion in Australia is very strongly against it?—(*Sir John Pender.*) It is.

1101. (*Mr. Tallow.*) You say that your capital has been reduced to 125*l.* a knot. Would you mind saying from what it was reduced—in other words, what was the original cost?—I cannot give you that. Remember we have paid out a great deal. Although we have paid a steady dividend for a great many years, we have put a large sum to reserve. The whole of those reserves have been, and will be, sooner or later, absorbed, as they are put away, in giving fresh facilities, and in reduction of rate. If we had paid a proportionate dividend in the early days of the profits we were receiving, we could not, at the present time, have come down even to the existing rates, but it is the putting away to the reserve fund which has enabled us to come down to the present rates. We could not have done it if it had not been for our strengthening of the company's position in the early days.

1102. I suppose that process is still going on?—Yes, but not a shilling from our reserves has ever gone amongst ourselves, it has all gone to the benefit of the public traffic. (*Mr. Hibberdine.*) To improve the service.

1103. (*Mr. Larimer.*) Nearly every question I had noted has already been asked, so that I have only just one or two left. Were the conditions under which the automatic reduction was to take place determined by traffic alone or by traffic and profits, or in some other way?—(*Sir John Pender.*) There were arrangements made according to traffic, and they were made with the Governments. You are talking of South Africa, I understand, just now?

1104. I was speaking rather of Australia.—Australia was based on the traffics and what was considered a fair and reasonable sum of money in the way of profits when we could afford to come down.

1105. Was that the result of a decision arrived at by the International Convention?—No, it had nothing to do with that; that was a purely private arrangement made between ourselves and the Australian Government.

1106. Are there any independent cables owned by France and Germany to the Far East?—No.

1107. None whatever?—No, not as a through line.

1108. So that you carry all the Continental traffic? We carry the Far East traffic. We may hand it over to other associated companies, that is, other companies with whom we work under a joint purse arrangement, which is well known, such as the Great Northern (Danish) Company. The Great Northern and ourselves carry the traffic to the Far East.

1109. East of Europe, apart from the Pacific cable, there are no other cables than yours?—To the Far East there are no other cables, but France has some local cables.

1110. I was speaking of through cables? No. (*Mr. Hibberdine.*) There is no through foreign cable to Australia; in the Far East there is the American Company, the Danish Company, the French Government cable, and the German Dutch Company.

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1111. I quite understand that France, of course, has them in Saigon?—(Sir John Pender.) They have to come on the Eastern, but the American or the Great Northern lines could carry their traffic a certain distance.

1112. You say that had it not been for the creation of the Pacific Cable Board, by this time some reduction would have been possible?—Certainly not only possible, but it would have actually come into effect.

1113. Therefore, to that extent the public has suffered by the creation of the Pacific Cable Board?—Yes.

1114. So far as the traffic between Europe and the East is concerned, you have already a great deal more than made up any loss you might have sustained by the Pacific cable, and has the time not come therefore in accordance with your own principle and practice to consider reduction?—We have not made it up.

1115. Between Europe and the East you had, prior to the existence of the Pacific cable, 1,700,000 odd words in the year, and last year you had 2,068,000: is not that an increase? It seemed to me, looking at these figures, that is an increase similar to what appears to have justified you in reducing from 4s. 9d. to 4s. 2?—(Mr. Hibberdine.) Yes, but that is only the European traffic; that is not the American traffic; we do not carry the American traffic now; the American traffic is carried by the Pacific Cable Board.

1116. You had the American traffic before, and it has practically gone to the Pacific Cable Board?—Yes.

1117. I am speaking of the Eastern traffic between Europe and the East, and I point out that the increase in the traffic from the introduction of the Pacific Cable Board until now is about as large as justified you in reducing prior to that the rate from 4s. 9d. to 4s. 2?—(Sir John Pender.) No, I think you must have got hold of the wrong figure. What is the figure which had to be arrived at before we went down to the 2s. 6d. rate? (Mr. Hibberdine.) It is a question of money. (Sir John Pender.) We will look up the figures. Your point is that we have already got to the figure which was named for the 2s. 6d. reduction.

1118. You have fixed the figure for the 2s. 6d. reduction?—Yes.

1119. But you have not got to that yet?—No. (Mr. Hibberdine.) Our figure was fixed at 330,000l. a year, and our traffic last year was only 238,000l. (Sir John Pender.) We have not yet arrived at the sum of money, but if we had got the Pacific traffic and the Pacific cable had not been laid, we should have been considerably over it.

1120. Then it is the question of money which determines you?—Yes.

1121. Traffic as represented by money, I mean?—Yes, traffic as represented by money.

1122. Supposing you had had that increase of traffic, do you say you would have had an increase of traffic which would probably have justified you in reducing the rate if the Pacific cable had not been laid? Would your expenses have been relatively less than they are now for the amount of traffic you do carry?—Yes, our expenses would have been less to a certain extent, but speaking right off, I do not know that they would have been less to any very great extent. We have to canvass in Australia, and we have to canvass to a certain extent here. The canvassing here does not cost us so very much because there are other traffics which have to be canvassed for, but in Australia, of course, we do spend a certain amount of money.

1123. (Chairman.) Could you give us the amount?—I do not know that it is a very material amount. (Mr. Hibberdine.) It will be 2,000l., 3,000l., or 4,000l. a year, perhaps.

1124. (Mr. Lorimer.) I see you deprecate, very properly, carrying unremunerative traffic?—(Sir John Pender.) Yes, we do not like doing that.

1125. Do you find it pays to send cable messages which cost the newspapers less than a tenth of a

penny per word?—(Mr. Hibberdine.) That is the division between the members of an association.

1126. You would have to divide it over a lot of newspapers to make it up if you wanted 3s. or 3s. 6d. there?—But the newspapers of Australia pay us 7½d. a word. When that news message arrives in Australia it is distributed among a large number of newspapers.

1127. That means that each group of newspapers would require to be about 75 to pay that amount; you do not mean to say you spread that over 75 newspapers?—I do not say that.

1128. "To Zanzibar and Mauritius the actual cost" is well under a tenth of a penny per word to each "individual paper"?—That is a different thing altogether. The news message passes Zanzibar, for instance, and in places like Zanzibar, Seychelles, Mauritius, and so on, we see how much the public can subscribe—it is not a matter of newspapers at all.

1129. When you go as far East as that you become public benefactors?—The traffic passes through there, and we say, "Very well, if you can" give us 40l. or 50l. a year we will deliver this news "message to you."

1130. That is hardly consistent with your statement, which I greatly appreciate, that you decline altogether unremunerative traffic?—But this traffic which we give away in that way is passing over the lines already. (Sir John Pender.) I think I can explain it to you. It is a message which is sent practically to very many parts of the world, it is the same message, and it goes through these offices, and it is dropped at each office. We are paid so much for that message, and we collect whatever we can additional. It is a news message which goes every day.

1131. You send your messages over cables, which cost something like half the rates you have instanced?—Yes.

1132. That of course must be profitable to you?—Our profits are all published.

1133. What is your dividend?—Seven per cent.

1134. Do you carry as much as that to reserve each year?—What we carry to reserve varies, but we carry a large amount every year, everything over the 7 per cent., but my point is this: with regard to that money which we carry to reserve not one shilling of that has ever been divided amongst ourselves; it has all gone in fresh instruments, keeping the concern up to date, and in laying fresh cables. We have spent during the last 20 years, roughly speaking, something like seven millions of reserve on the cables.

1135. How much have you spent in repairs in the same time?—I cannot give you the total amount offhand.

1136. What is your capital?—Remember the capital is partly in ordinary shares, partly in preference shares, and partly in debentures, which are 4 per cent.

1137. Do these companies which you have specified, the German Atlantic, the French Atlantic, and the Great Northern Company pay fairly well?—The French Atlantic, no. The German Atlantic started with a very fine subsidy from the German Government—all the German companies do; they are subsidised, and as they get the traffic and work into the traffic the subsidy gradually diminishes. It is really a guarantee from the Government.

1138. That is a different position from yours altogether?—Yes.

1139. The Pacific Cable Board we know all about; it is rapidly becoming self-supporting?—Yes.

1140. Then again you mentioned in this paper that you had, in order to give the public additional facilities, instead of duplicating your cables taken them over different routes and introduced a great many different stations?—Yes.

1141. I think I gathered from what you said to Sir Alfred Bateman that the more stations you have the cheaper the cable is?—No, no; that is another point.

1142. Did you not say that when you could have a short cable length you used lighter copper and lighter gutta-percha?—If we had laid the system to Australia over our old lines of cables to Australia, the

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cables would have been much shorter in length and they would have been very much less expensive. The new line going to the Cape was for a very much longer distance, and therefore was very expensive.

1143. I thought you said there had been the introduction of many stations and, therefore, you were making them at shorter intervals?—No, you can see the tremendous stretches (*pointing on the map*), whereas the stretches *here* are nothing compared with the stretches we have to make going round the Cape.

1144. The fact that you emphasised the introduction of so many new stations in this remark you made in the paper, led me to think you were taking shorter distances?—No, they are very long distances.

1145. There is just one other question I would like to ask. You spoke to-day of the very small percentage of social messages you had, and I have often thought that people who were compelled to send social and domestic messages are, no doubt, at a great disadvantage as compared with those who use a code, but they are at this further disadvantage that the users of code seldom adopt words with fewer than 10 letters. The senders of domestic messages, on the other hand, are compelled to use whatever words suit their purpose?—They are.

1146. Therefore, I wondered whether you ever thought of charging per letter, or number of letters, instead of per word?—At one of the International Conferences a proposal was made that all charging by words should be done away with, and that we should charge by letter, so many letters, six or eight letters, I forget which, and that anyone who handed a message in should be charged for so many letters irrespective of the group being pronounceable, or not. We brought forward a proposal for charging combinations of 10 letters in plain language as one word; as far as we were concerned the principle, I think, was agreed upon as being a sound principle, but when it was worked out it was found that it was impossible for the Government to agree to it, because on the Government's channel cables it is almost entirely all plain-language business, and there are a lot of "the's" and small words in the traffic, and I think I am right in saying the estimate of loss was so great that it could not be accepted. The percentage of plain-language commercial which we carry is next to nothing, and the percentage of code that the Government carries is next to nothing. We should be prepared, however, to agree to the suggestion of charging by a number of letters

# PAPERS LAID BEFORE THE COMMISSION.

## I.—MIGRATION.

Statistical Investigation on Certain Points arising out of a Memorandum by the  
Dominions Royal Commission on the Effect on British Trade of Emigration from the  
United Kingdom, and on the Future Populations of the Various Countries of the Empire;  
by E. C. SNOW, M.A., D.Sc.

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At the end of December 1912 the Secretary to the Commission informed me that the Commissioners were desirous of obtaining information as to the results of migration from the United Kingdom on British trade, and indicated in a memorandum certain specific points on which it was desired to obtain a report.

*The Memorandum was as follows:—*

MEMORANDUM OF INQUIRY AS TO THE EFFECT ON  
BRITISH TRADE OF EMIGRATION FROM THE  
UNITED KINGDOM.

1. It is generally admitted (see for example the discussion on emigration at the last Imperial Conference) that it is to the advantage of British trade that emigrants leaving the United Kingdom should go to other parts of the British Empire rather than to foreign countries.

Is this view correct, and, if so, can figures be furnished illustrating the extent of the advantage?

2. There is a difference of view as to whether emigration from the United Kingdom to other parts of the British Empire, and in particular to Canada and Australasia, is to the advantage—

(a) Of the Empire as a whole,

(b) Of the United Kingdom itself.

It is contended on the one hand under (a) that the emigration from the United Kingdom, even to other parts of the Empire, of desirable citizens involves net loss to the Empire by weakening the United Kingdom, which continues to bear a disproportionate share of the Imperial burden, and that the same consideration applies with still greater force as regards (b), while the emigration of undesirable citizens can be of no benefit to other parts of the Empire.

On the other hand, it is contended that owing to the comparative scarcity of population in other parts of the Empire which have vast natural resources awaiting development, emigration from United Kingdom to those other parts benefits (a) the Empire as a whole through the increased productive and consuming power of the individual in those other parts as compared with the individual in the United Kingdom, and (b) the United Kingdom itself, because the increase of the consuming power of the individual in those other parts of the Empire is so great, as on the whole to set up a greater demand for the products of the industry of the United Kingdom than would be set up if the individual remained in the United Kingdom, and because the pressure of population in the United Kingdom is becoming so great that the reduction of its population is in itself a desirable object, and that persons who could never become desirable citizens in the United Kingdom can become desirable citizens in the other parts of the Empire owing to the more suitable environment and the wider opportunities of individual advancement which they afford. This last argument is particularly used, for example, in relation to the emigration of Poor Law children.

3. Can figures be furnished illustrating the alleged increased productivity and consuming capacity of the individual in Canada and Australia as compared with the individual in the United Kingdom, and the consequent effect of emigration on the trade—

(a) Of the Empire as a whole,

(b) Of the United Kingdom.

4. It would be of advantage if the subject could be treated separately, so far as possible, as regards the emigration of—

(i) Adult males,

(ii) Adult females } (both in reference to the immedi-

(iii) Children } ate and the more remote future).

What effect on the future population of the Empire as a whole will be caused by the emigration of men, women, and children from the United Kingdom to the Colonies?

The investigation made with the view of throwing light upon the subjects referred to in the above memorandum is described below, but it will not be out of place to give at the beginning a brief summary of the chief conclusions which appear to be justified.

1. There is little evidence that migration *directly causes* increase in external trade. The relationship between them appears to be one of association merely—the waves and depressions of trade and migration occur together—and the inquiry gives no support to the opinion that activity in migration *causes* activity in trade (except, of course, in so far as the emigrants themselves take British goods from the United Kingdom). If emigration from the United Kingdom to, say, Canada were the direct cause of increase in the external trade between those countries we should, on analysing the experience of the past, expect to find that waves of migration had preceded, by a little, waves of trade. Actually we find that between the United Kingdom and both Canada and the United States activity in migration and trade—throughout the period 1878–1911—practically synchronised. Activity in the export trade from the United Kingdom to Australasia appears, indeed, to have preceded migration from the former country to the latter, and only in the case of imports from Australasia to the United Kingdom did trade follow migration from the United Kingdom. Organised assistance of emigration was considerably less in the period reviewed than in the past two or three years, and under the conditions then existing activity in migration occurred, on the whole, in times of general prosperity. Left to itself migration (with the exception of that from Ireland) appears to be a phase of a world-wide economic phenomenon—an indication of prosperous conditions. The periodic booms in trade throughout the world require some redistribution of labour, and this has been effected by migration.

2. Concerning the question of whether or not it is to the advantage of British trade that emigrants from the British Isles should go to other parts of the Empire rather than to foreign countries no direct satisfactory statistical data have been adduced. It has been ascertained, however, that, in the period 1878–1911 a particular “dose” of emigration from the United Kingdom was *associated* with a greater *proportional* increase in trade when that emigration was to Australasia or Canada than to the United States. This does not properly answer the question proposed, since the emigration cannot be ascribed as the *cause* of the increase in trade, and, moreover, there are many other interacting factors—magnitude of population, stage of development, extent of trade with other countries, etc.—which affect the consideration of the problem. All that can justifiably be said is that the balance of evidence derived from the experience of 1878–1911 does not controvert the view that it is better for British trade that emigrants from the United Kingdom should go to other parts of the Empire rather than to foreign countries.

3. On the question of the effect of emigration on production and consumption very little general statistical matter can be shown. Only in the case of Australia, and for the last few years, are figures available giving measures of production and consumption of the population and the variation in these from year to year. In that country production and consumption per head of the population have certainly increased during a time of active immigration, but as this has also been a time of general prosperity throughout the civilised world it is not possible to say if the boom in migration has been the direct cause of the increased production and consumption, or if those increases would still have taken place if the immigration had not occurred.

On the whole question of the relationship between migration and general prosperity the most simple hypothesis to account for the fact that, under the unconstrained conditions existing during the greater part of the period 1878–1911, migration from the United Kingdom to the Colonies was associated with times of pros-

perity (except in the case of emigration from Ireland) is that migration is an important aid to commercial and industrial welfare by effecting the translation of labour to its most productive spheres. It is not justifiable to assume from this, however, that the *artificial* transportation of a considerable population to the Colonies in a time of industrial stagnation is necessarily going to do much to accelerate the time of prosperity.

4. In the later paragraphs of this report certain of the salient census figures of the various parts of the British Isles and the Dominions are discussed, some demographic statistics having bearing on the question of the future populations of the countries are described, and calculations of those future populations made on certain hypotheses of rates of increase. The most important of those paragraphs are probably those (20–21) in which an analysis is made of the geographical distribution of the surplus of unmarried women in England and Wales. The total excess of females in England and Wales in 1911 was, as pointed out in the memorandum supplied to the Commission by the British Women's Emigration Association [printed in Cd. 6516, p. 240], 1,179,000. The surplus of unmarried females, however, was only 296,000, while if we deal only with persons of emigrable ages, say 15–35, the excess of unmarried women over unmarried men between those ages was only just over 7,000 (having decreased from 39,000 at the previous census). On further inquiry it does not appear that there is in England and Wales any appreciable surplus of women who are both of the type desired by the Dominions and can at the same time be readily spared by ourselves, since it is only in the localities of higher social status—the better parts of London and the suburbs and the seaside and health resorts—that the surplus exists. In the artisan and poorer parts of London and the suburbs, and in fact in industrial towns generally (except in Lancashire and the West Riding of Yorkshire, in which places there is a good deal of well-paid female labour), unmarried women between 15 and 35 are fewer than unmarried men between the same ages. The surplus of unmarried women—small, in any case—consists chiefly, therefore, of domestic servants, who can be hardly spared by ourselves, and of women of higher social status whose presence in the Dominions is not urgently needed.

The tables referred to in the text have been printed at the end of the report (pp. 75–86).

#### Introduction.

It would be satisfactory to be able to deal with the first point raised in the memorandum of the Commissioners—viz., upon the desirability, so far as regards trade, of emigrants from the British Isles going to other parts of the Empire rather than to foreign countries—by straightforward inspection of the figures of migration, exports, and imports. The kind of direct statistical evidence which might be expected to throw light upon the matter is that showing the trade with the United Kingdom per head of the populations of those countries to which emigrants from the United Kingdom go in large numbers, some of these being within and others outside the Empire. Such evidence for the last three census years for two groups of countries within the Empire—Australasia and British North America—and one outside—the United States—is as follows:—

Census Year.	White Population.	Imports from United Kingdom per head of Population.	Exports to United Kingdom per head of Population.
AUSTRALASIA.			
1891 . .	3,947,000	6.46	7.92
1901 . .	4,662,000	5.78	7.47
1911 . .	5,463,000	7.45	10.42
BRITISH NORTH AMERICA.			
1891 . .	5,031,000	1.44	2.51
1901 . .	5,592,000	1.46	3.65
1911 . .	7,447,000	2.73	3.51
UNITED STATES.			
1890 . .	55,152,000	0.58	1.76
1900 . .	66,890,000	0.30	2.07
1910 . .	81,733,000	0.38	1.47

Trade per head of population with the United Kingdom is certainly larger in the two places within the Empire than in the case of the United States, though, as shown in Table I, the absolute magnitude of the exports to the United Kingdom is greater from the United States than from either of the other countries, and also the imports of British and Irish products into the United States are greater than those into Canada, though not in recent years those into Australia. On the other hand, both exports from the United Kingdom to the places within the Empire and imports from the latter to the former have increased at a greater rate than have the corresponding exports to, and imports from, the United States. The facts that the average individual in Australia and Canada both receives more from the United Kingdom and sends more to it than the average individual in the United States, and that the trade of the two Dominions with the United Kingdom is increasing more rapidly than is that of the United States, would appear to substantiate the view expressed in the memorandum. Certainly they give no evidence controverting it. But although the view may be correct there are difficulties in the way of accepting the above information as certain proof. The logical consequence of the argument concerning trade per head of the population, for example, would be that it is more desirable for emigrants to go to Australia than to Canada, and, of foreign countries, to the Argentine rather than to the United States. Better information on the question would be to ascertain, if possible, the effect upon trade with the United Kingdom of a particular instalment of emigration to each of the countries. The difficulty here arises that emigration to certain of the countries might have occurred most in times of prosperity, and to others more in times of adversity, and the statistical evidence drawn from the two cases would not be comparable. In any case it would be unjustifiable, without further investigation, to assume that any particular increase in trade between two countries which took place at the same time as, or soon after, a boom in migration between them was *caused* by the latter. It might be only a part of general trade prosperity throughout the world, and might have occurred if the migration had not taken place. For these reasons it appears better to make a detailed investigation of the relationship—as manifested by the experience of the past—existing between migration and trade and general prosperity.

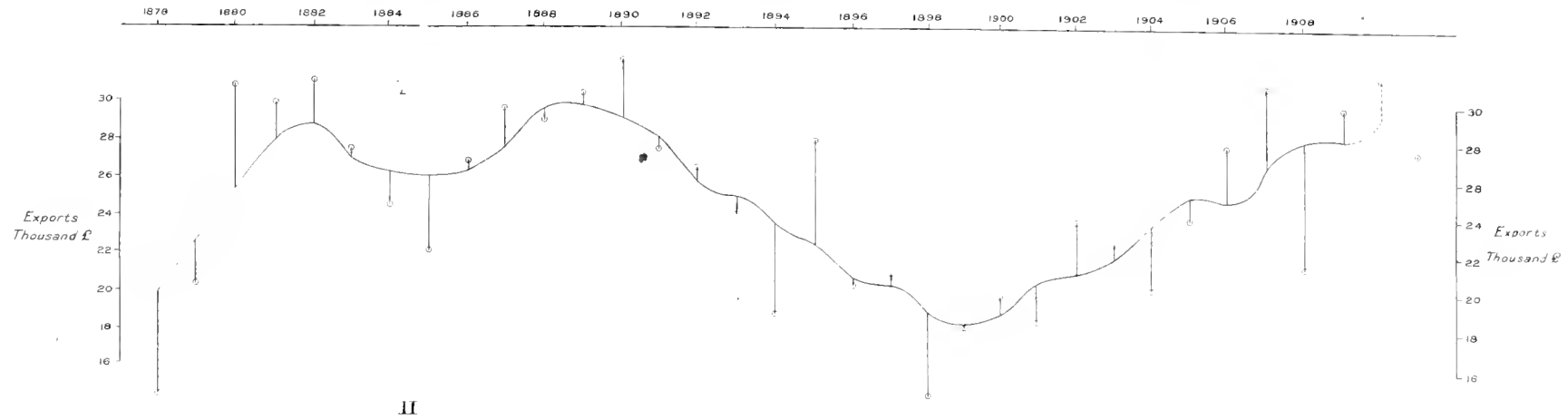
Accordingly the questions raised in the memorandum of the Commissioners have been dealt with under the following heads:—

- (i) What association between the external trade and migration from the United Kingdom can be detected from the statistics of the past 35 years?
- (ii) Does any relationship exist between emigration from, or immigration to, a country and general prosperity there?
- (iii) What figures are available to illustrate the effect of migration on production and consumption in the countries of the Empire?
- (iv) Consideration of the population and vital statistics of various countries of the Empire and estimates of future populations.

It has been found impossible to give adequate answers to (i) and (ii) by inspection of statistics alone. For example, in attempting to discover whether years of active emigration from England and Wales have been years of prosperity (as evidenced by variations in the marriage rate) general inspection shows that the figures for some years point in one direction, and for other years in the opposite direction. In order to weigh the evidence it is necessary to determine the *average experience*, and this can be done by the use of the technical implement known as the "correlation coefficient." The impossibility of making satisfactory deductions from the data by general considerations, and the illumination which the employment of the method of correlation throws upon the problems proposed, has been the reason, after a little hesitation, for adopting that method for the elucidation of the first two of the above questions. The conclusions to be drawn from the



Diagram 3.



United Kingdom and United States.

- I. Exports from U.K.
- II. Nett Migration from U.K.
- III. Imports into U.K.

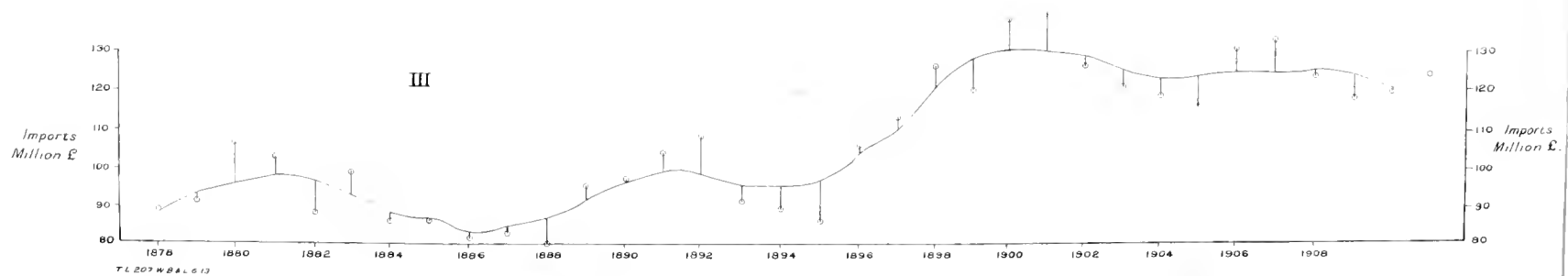
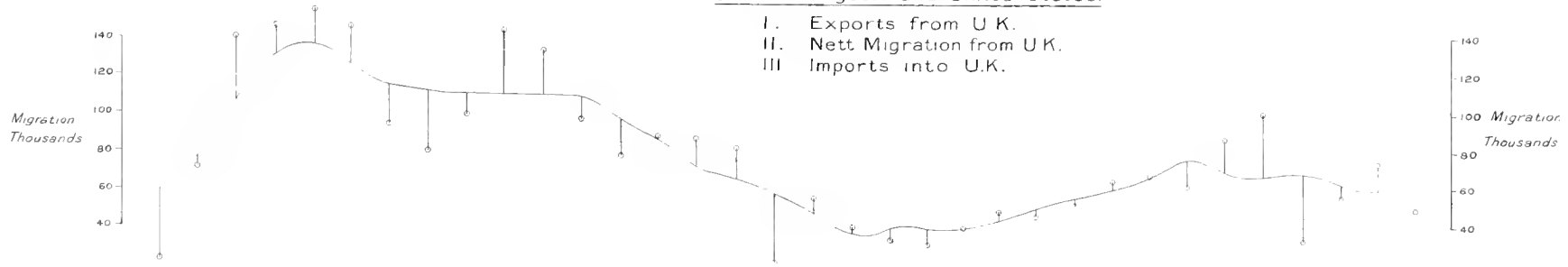




Diagram 2.

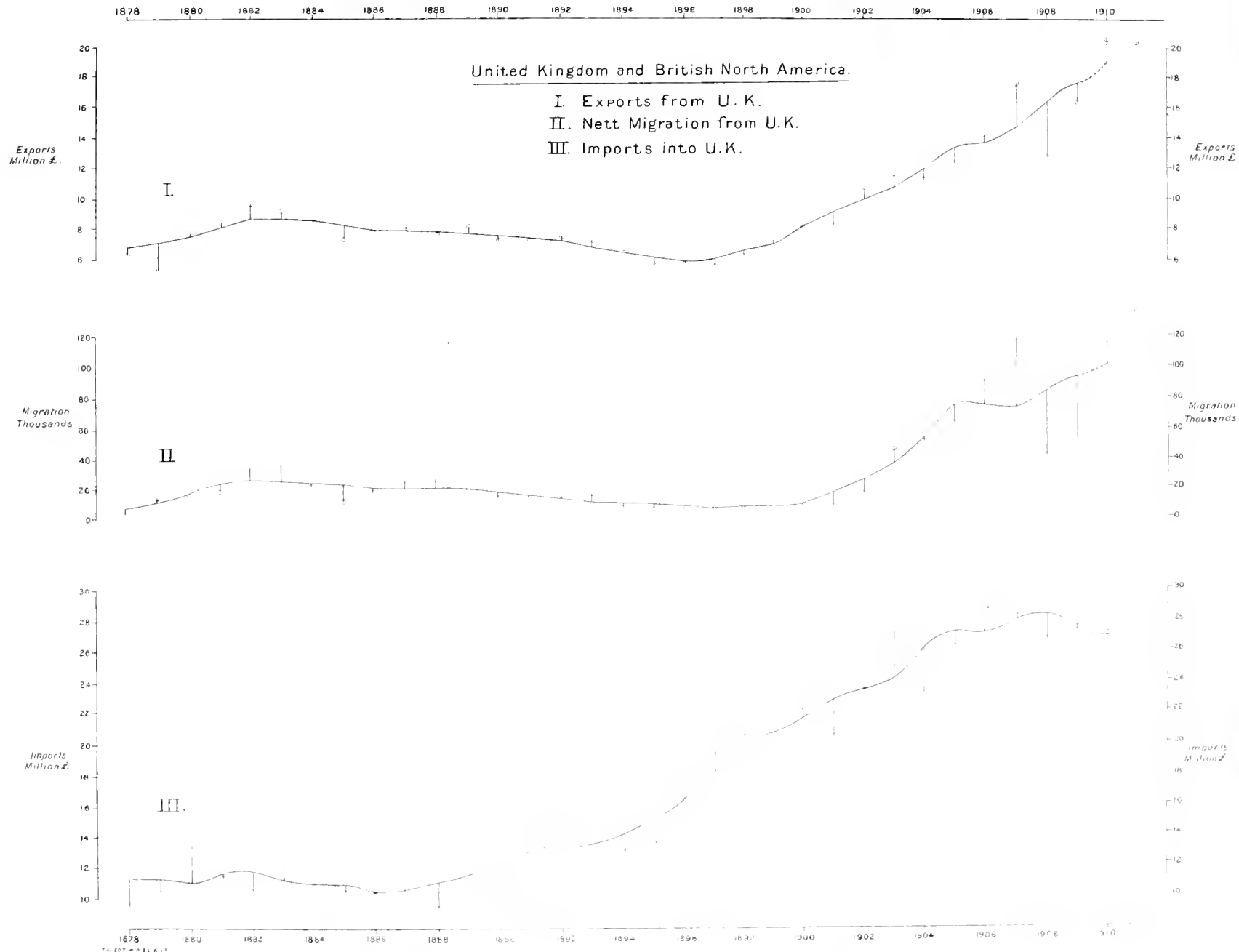
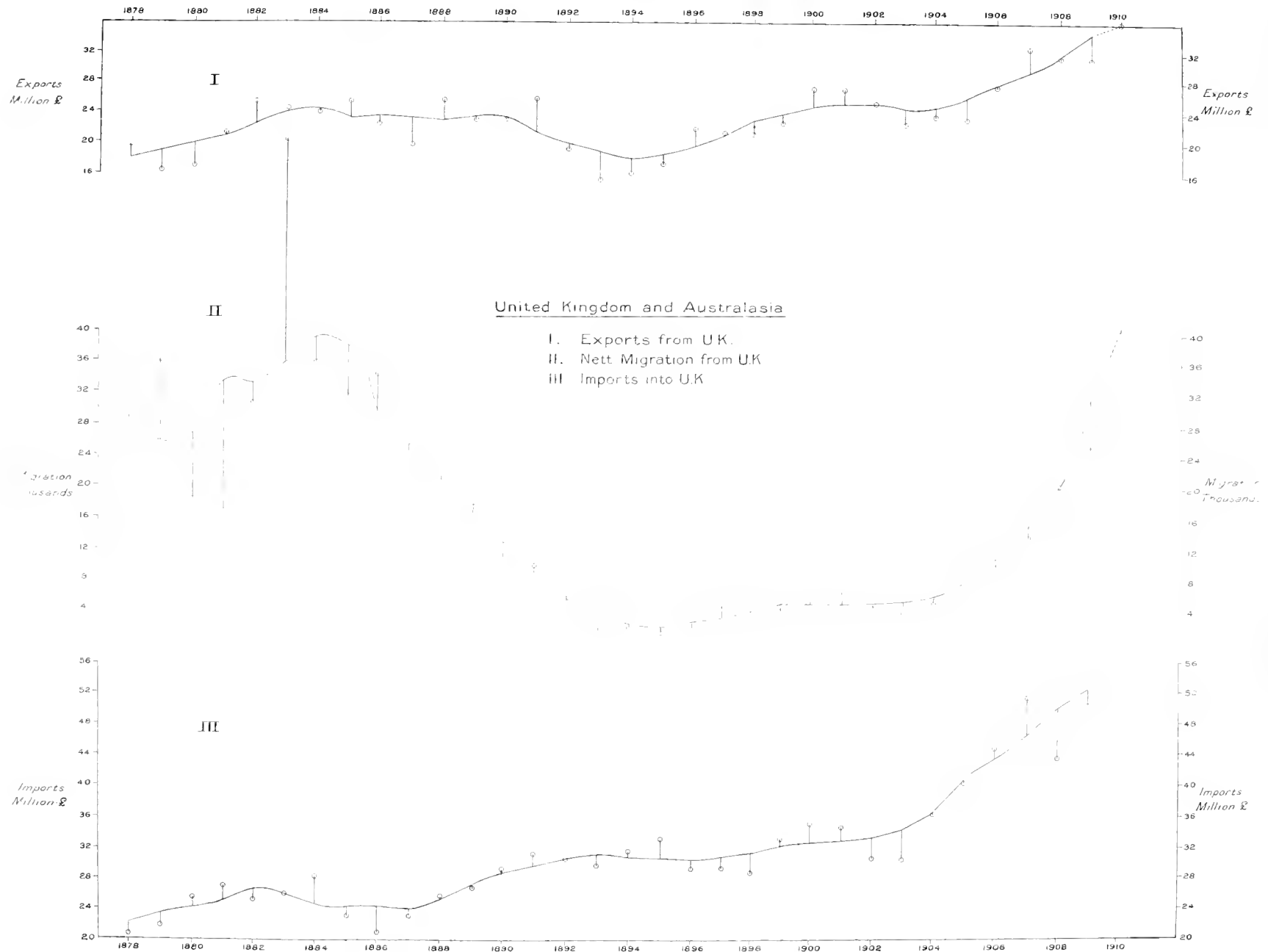






Diagram I.



numerical coefficients stated are given in full in necessary cases, so that the fact that the technical term, "correlation," is used need cause no difficulty in reading.

(i) WHAT ASSOCIATION BETWEEN THE EXTERNAL TRADE AND MIGRATION FROM THE UNITED KINGDOM CAN BE DETECTED FROM THE STATISTICS OF THE PAST 35 YEARS? (The general conclusions formed on this question are stated in paragraph 8.)

(1) The first question can be dealt with by investigating the relation which exists between the flow of migration and the flow of imports into, and of exports from, the United Kingdom, from and to those parts of the world to which most of our emigrants go. In the official returns three chief geographical divisions receiving those emigrants are made out:—British North America (Canada and Newfoundland); Australasia (Australia and New Zealand); and the United States. The *net* migration (i.e. excess of outward over inward passengers) to each of those regions has been tabulated for all years since 1876, and is shown in Table I.

The ideal method would be to consider true emigrants only (i.e., those leaving the country with the intention of taking up their permanent residence elsewhere), but this—through absence of detailed statistics—cannot be done over a series of years, and the variations in the *net* movement of passengers have been taken to indicate the fluctuations in the activity of true emigration from the United Kingdom. This movement is compared in the following paragraphs with the variations from year to year in (i) the value of the exports of British and Irish produce to, and (ii) the total value of imports (exclusive of bullion and specie) from each of the three areas named. The figures for these exports and imports have been collected for Canada plus Newfoundland, Australia plus New Zealand, and the United States, and are shown for the years 1876 to 1911 in Table I. For brevity of expression in the following paragraphs the shorter names, Canada and Australia, are used instead of the fuller descriptions of the regions of which they form the predominant parts. For further abbreviation the term "migration" is, in the same paragraphs, employed for "net movement of passengers from the United Kingdom," "exports" for "exports of British and Irish produce from the United Kingdom," and "imports" for the "total value of the imports (exclusive of bullion and specie) into the United Kingdom." Throughout the discussion the restrictions of the data should be borne in mind. The deficiencies of the statistics of external trade are well known and need not be repeated here. This report deals solely with the statistics as they are published, the possibility that these statistics have been affected by tariffs, or other extraneous circumstances, being ignored. Moreover, they necessarily relate to prices as returned year by year, and take no account of the changes which have occurred in the general level of prices. The method employed in these paragraphs, however, is not one which can be applied only to refined and perfect data, and the imperfections referred to affect the conclusions drawn probably to a very small extent.

(2) The question of the association between migration and trade may be looked at from two points of view:—(a) the long period view, and (b) the short period view. For (a) we wish to know whether a wave of migration, extending over several years, between two countries is followed by a higher general level of trade between those countries than was formerly reached. For (b) we require to ascertain if a temporary spurt in migration is accompanied or followed by a corresponding spurt in trade. Is a year in which the migration between two countries is above the average one in which the trade between those countries is also above the average, or is a year of activity in migration succeeded by one of activity in trade? Both (a) and (b) are of importance, but the most reliable answer can be given to the latter.

The published figures of migration and trade fluctuate so considerably from year to year that it is necessary to smooth them in some way before attempting analysis. The data are not sufficiently extensive to warrant the labour of applying any refined method of smoothing, and for the present purpose adequate accuracy is

probably attained by the process illustrated below on the figures of the migration from United Kingdom to Australia.

Year.	Actual Migration. (Thousands.)	Migration Smoothed (Thousands.)
1904 - - - -	5.2	6.1
1905 - - - -	7.3	8.0
1906 - - - -	9.9	11.3
1907 - - - -	13.9	15.3
1908 - - - -	20.4	20.4
1909 - - - -	25.2	31.6
1910 - - - -	32.7	—
1911 - - - -	65.8	—

The average of the bottom five numbers in the column showing the actual migration is 31.6, and this gives an idea of the trend of the wave of migration in the middle of the period, viz., 1909. The actual migration in that year was 25.2 thousands, so that, measured against the mean of the five years of which it was the middle, 1909 was a year of rather slack migration. This process of averaging is repeated for every five-year period, and a series of numbers obtained which, when represented graphically and joined by a curve, give a good idea of the general flow of migration throughout the period considered. The same process can be applied to the figures of exports and imports, and curves obtained showing the general course of these over a series of years. The three curves—I for exports, II for migration, and III for imports—are shown in diagrams 1, 2 and 3, for Australia, Canada, and the United States respectively.\*

By comparing the curves in any one diagram we can ascertain, in a general way, whether the course of exports or imports corresponds to that of migration. In the case of Australia the curves indicate that migration and exports, on the whole, rose together between 1878 and 1884, migration fell continuously, while exports decreased appreciably between 1884 and 1894, and since 1894 a marked correspondence will be noticed—rising from 1894 to 1900, stationary for the next four years, and rising together since. In the case of the curves for migration and imports the agreement is not so marked, though since 1896 they have approximately moved together. As regards Canada the correspondence between the curves for migration and exports is seen to be very close, the oscillations in the two curves agreeing quite closely. But, as in the last case, the resemblance between the trend of migration and of imports is less marked, and in the period 1886 to 1900, while migration was extremely small, imports were rising continuously.

Turning now to the curve for the United States, the same general tendencies can be made out. Exports and migration rise and fall together with fair correspondence, but again the trend of imports does not seem to agree so closely with that of migration. A convenient period for the comparison of the curves in the different diagrams is from 1902 to the end of the time considered. In this, for Australia and Canada, migration was rising—to the former country very rapidly—but for the United States migration was practically stationary. At the same time exports from the United Kingdom to all three countries rose, as did imports to the United Kingdom from Australia and (to a smaller extent) Canada, but from the United States they actually fell slightly. This might be taken as some small evidence that imports into, and migration from, the United Kingdom from and to the other British countries are more closely associated than are imports from, and migration to, the United States.

(3) To investigate the possible "short period" effects of migration, we require to study more closely the figures for individual years and to take account of the deviation of the figure for a particular year

\* The dotted portions of the curves on the right-hand extremities are obtained by joining the last point reached in the manner above described (i.e. the average for five years of which 1909 is the centre) to the point representing the average of three years of which 1910 is the centre.

from the average of the years around it. This deviation is represented in each diagram by means of a vertical line. Thus, in the case of the figures of migration to Australia, the average of the five years, of which 1883 was the central one, was 35,800, but the actual migration in the year was 64,400. That year, therefore, was one of extremely active migration to Australia, the extent of that activity being measured by the deviation 28,600 above the average for the five years. Similar deviations have been worked out for every one of the years dealt with, for each of migration, imports and exports, and the state of trade and migration in any year can readily be appreciated from the diagrams. A vertical line *above* the curve indicates that trade or migration in that year was above the average, and a line *below* the same signifies that trade or migration was below the average, the extent of the deviation being indicated by the length of the line. The problem presented can now be looked at graphically, and the association between migration and trade can be roughly appreciated by noting the number of times the corresponding vertical lines for migration and exports, and again for migration and imports, are on the same side of the curve compared with the number of times they are on opposite sides. Thus, in the case of Australia, the deviation from the migration curve and the corresponding deviation from the exports curve are on the same side for 21 years and on opposite sides for 11, and it would therefore appear that years of active and quiet migration are more frequently years of good and slack exports respectively than not. Similarly in the comparison of migration with imports, in 14 years the deviations are of the same sign and in 17 of opposite sign, and we cannot assert any association between activity of migration and activity in imports. In the same way, if we wish to ascertain whether a spurt in migration in one year is *followed* by an increase in exports in the *next* year we can count the number of times in which the deviation in the case of migration in one year and from the exports in the next are of the same sign, and compare with the number of cases in which these are of opposite signs.

This method, however, at the best can only give a rough idea of the degree of association and does not enable us to draw the fullest possible conclusions from the data. There are two reasons for this: (i) it does not allow of the *magnitude* of the deviations being taken into account, e.g., in the case of Australia the deviation of the migration in 1883 was exceedingly large and positive, but that of the exports was only just of the same sign, and in the mere counting of the corresponding deviations such a case as this is given the same weight as one in which the corresponding deviations are proportionally of the same magnitude; (ii) it does not admit of a quantitative measure of the degree of association being made out.

(4) These difficulties can be overcome by the use of the method of correlation; in fact, the problem appears to be admirably suited for the employment of that method, and without it no adequate solution can be looked for. This enables us to give a quantitative index to the association between the fluctuation in the migration in one year and the fluctuation in the exports or imports in the same, or the next, or the previous year, and in this way we can ascertain whether a boom in migration is followed, *on the average*, by a boom in trade, or whether it follows a boom in trade or is co-existent with it. The technical details of the work involved in finding such an index need not be given here, but it may be stated that the degree of association between two phenomena varying continuously is measured by a coefficient of correlation ( $r$ ) which can take all values (positive and negative) between 0 and 1, according to the intensity of the relationship existing between the phenomena. Thus if we found that the deviation in migration was always accompanied by a *proportional* deviation in exports—so that, knowing the former, we could exactly predict the latter—the correlation would be 1. If, on the other hand, no relationship existed between the two phenomena—so that knowing the deviation of the migration we could not say whether, *on the average*, the corresponding deviation of the exports were large or small, or of the same or opposite sign—the value of  $r$  would work out to be practically zero. Values between 0 and 1 are found for all the various degrees of relationship existing between complete in-

dependence and perfect association between the two phenomena. In the following sets of figures, for example—

A	-	1	2	3	4	5	6	7	8	9
B	-	3	6	2	1	5	9	8	4	7

we see that, though a knowledge of a particular figure in series A by no means enables us to state the corresponding figure in series B, yet, *on the whole*, the higher figures in one series are against the higher figures in the other, and the measure of the extent to which they are associated is given by the correlation coefficient, which in this case has the value .5. A negative correlation coefficient has the same significance as a positive one, but indicates that a rise in one variable is accompanied, *on the average*, by a fall in the other. In the present problem the correlation coefficient will enable us to form an opinion from the *average experience* of the 30 or so years dealt with of the association between migration and trade.

(5) The actual correlation coefficients which have been worked out are:—

Between the deviation of migration in one year and deviation of exports and also of imports:

(a)	-	-	-	-	-	-	-	-	-	-	in the same year.
(b)	-	-	-	-	-	-	-	-	-	-	in the previous year.
(c)	-	-	-	-	-	-	-	-	-	-	previous year but one.
(d)	-	-	-	-	-	-	-	-	-	-	next year.
(e)	-	-	-	-	-	-	-	-	-	-	next year but one.

From the nature of the mode of smoothing adopted some of these coefficients will necessarily turn out to be positive and others negative, though if there is no relationship between trade and migration the actual values will be small. The chief object is to determine which particular interval gives the highest positive correlation. If we find a high positive correlation between the deviation in migration in one year and the deviations of the exports in the next we can conclude that, *on the whole*, a boom in migration in one year is generally followed by an increase in exports in the next. It should be emphasised, however, that the weight to be attached to any coefficient depends upon the number of observations on which it is based and upon its magnitude. In the present case the number of observations—30 to 32—is about the minimum number it is advisable to work with. Moreover, it must be remembered that the coefficients merely tell us the *average* connection between migration and trade, according to the experience of the 30 years or so considered, and we must be careful to refrain from generalising from so limited an experience.

*Correlations between the fluctuations in emigration from the United Kingdom to the countries named, and the fluctuations in the exports from the United Kingdom.*

Emigration one Year with Exports	Australia.	Canada.	United States.
Previous year but one -	+05	-46	-36
Previous year - -	+49	-22	+17
Same year - - -	+01	+83	+72
Next year - - -	-30	-18	-27
Next year but one - -	+17	-55	-12

*Correlations between the fluctuations in emigration from the United Kingdom to the countries named, and the fluctuations in the imports to the United Kingdom.*

Emigration one Year with Imports	Australia.	Canada.	United States.
Previous year but one	+19	-50	-10
Previous year	-18	+26	-07
Same year	-16	+38	+37
Next year	+27	-30	+13
Next year but one	+11	-13	-32

The general conclusions to be drawn from these figures are that migration from the United Kingdom is more closely associated with exports than with imports,

and that the relationships between the United Kingdom and the United States and Canada are closer than that with Australia. A difference, too, will be noticed as regards the period at which the maximum correlation occurs. We can approximately find the period at which, on the average, a boom in migration is followed or preceded by a boom in trade by interpolating in each case between the three successive correlations which have the largest one at the centre. When this is done the following conclusions can be drawn:—

<i>Exports from the United Kingdom are most closely related to the migration of</i>	<i>The maximum correlation being</i>
One year later in the case of Australia	-49
The same time in the case of Canada	-83
About two months after in the case of the United States	-73

<i>Imports into the United Kingdom are most closely related to the migration of</i>	
About 15 months earlier in the case of Australia	-28
About 4 months later in the case of Canada	-43
" 2 " earlier in the case of the United States	-38

No weight can be attached to differences of two or three months only, and the most strongly supported conclusion to be drawn from the figures is that activity in migration to Canada and to the United States is quite highly correlated with activity in the export trade to those countries at the same time. In the case of Australia the flow of migration appears to have been greatest about one year after the flow of exports to Australia, but the degree of the association is only moderate. The correlations between migration and imports are not high enough to assert definitely that an appreciable degree of relationship exists between them. So far as they go they appear to suggest that imports into the United Kingdom from the United States and Canada synchronize with emigration from the former country to the others, but that imports from Australia follow about one year after the flow of British and Irish emigrants to that continent. This latter conclusion, however, has the least statistical significance of any.

On account of the large variations in the magnitude of migration during the period considered it might be argued that the deviation from the average should be expressed as a percentage of that average before the correlations were worked out. This is a point of some technical interest, and accordingly in two cases the corresponding results when the deviations have been expressed as percentages of the corresponding averages have been ascertained.

*Correlations between the percentage fluctuation from the average for migration with percentage fluctuation from the average for exports from the United Kingdom.*

Migration one Year with Exports	Australia.	Canada.
Previous year but one	-49	-30
Previous year	+55	+49
Same year	+23	+53
Next year	-19	+65
Next year but one	+49	-42

These correlations, however, lead to the same general conclusions as before, viz., that to Australia the flow of migration is, on the average, about a year behind the flow of exports, but in the case of Canada the movements synchronize.

None of the figures so far obtained suggest that migration directly aids the progress of exports and imports. The waves of migration and trade between United Kingdom and the comparatively near countries of Canada and the United States occur together, and there is no definite evidence that the wave of migration starts first, and is in any degree the direct cause of the movement in trade. Only in the case of the imports from

Australia is there any evidence that activity in migration precedes activity in trade. The figures support the conclusion that migration is merely a phase of an economic phenomenon. The periodic booms in trade in the civilised parts of the world require some redistribution of labour, and this is brought about by migration.

(6) It is instructive to ascertain the average fluctuation in trade which accompanied a fluctuation of a stated amount in the migration. This is given by the so-called "regression" of the statistician. The actual results for the years for which the largest correlations were found are stated below:—

Considering the experience of the 34 years 1878-1911—

*A year in which the fluctuation in the emigration from the United Kingdom to Canada was 10,000 above the mean of the figures for the five years of which it was the centre was, on the whole, a year in which the exports to Canada were 670,000l. above the mean of those five years, and in which the imports from Canada were 450,000l. above the corresponding mean.*

*A year in which the fluctuation in the emigration from the United Kingdom to the United States was 10,000 above the mean of the figures for the five years of which it was the centre was, on the whole, a year in which the exports to the United States were 1,040,000l. above the mean for those five years, and in which the imports from the United States were 1,210,000l. above the corresponding mean.*

*A year in which the fluctuation in the emigration from the United Kingdom to Australasia was 10,000 above the mean of the figures for the five years of which it was the centre, followed a year in which the exports to Australasia were, on the whole, 1,490,000l. above the corresponding mean, and was followed by a year in which the imports from Australasia were, on the whole, 920,000l. above the corresponding mean.*

A reference to the diagrams will assist in the appreciation of these statements. Keeping attention on the lines showing the emigration and the exports from the United Kingdom to the United States it is noticed that in some years the fluctuation in emigration is large and in exports is small, and in other years the fluctuation in emigration is small and in exports is large. We wish to strike an average throughout the period covered by the curve. Although there were no years in which the fluctuation in emigration was exactly 10,000, the process adopted permits us to approximate to what we should actually find if we had a number of years in which the fluctuation in the emigration was 10,000 and we found the mean of the fluctuations of the exports (or imports) for those years.

These statements as to the mean fluctuation in exports or imports associated with a fluctuation of a given amount in the emigration must be interpreted relative to the average values of exports and imports in each case through the period under consideration (1878-1911).

Average exports from and imports to the United Kingdom (1878-1911).

	Exports.	Imports.
	£	£
Canada	9,500,000	17,600,000
United States	24,800,000	107,400,000
Australasia	24,000,000	32,900,000

The most satisfactory comparison can be made between the figures for Canada and the United States, since the correlations for these countries were found above to be approximately the same. Taking into account the fact that in the 34 years considered the average value of the exports from the United Kingdom to the United States was between two and three times greater than the corresponding value to Canada, it appears that activity of a stated amount in migration was accompanied by a proportionally greater increase in exports to Canada than to the United States, and a similar inference can be drawn with regard to the imports. Considered in proportion to the average values over the 34 years, the figures for Australia indicate increases in the trade of about the same order as those for Canada, but the fact that exports to, precede, and imports from, follow, migration to Australia

is to be remembered in the consideration of these figures. The circumstance that the population of the United States is about twenty times as great as that of either Australia or Canada is probably some explanation of this difference, but the fact appears to be definitely substantiated that a particular increment of migration has been on the average accompanied by a greater *proportional* increment in trade in the case of the two British colonies than in that of the United States. It may be useful to emphasise again, however, that we have brought forward no evidence that trade accompanies migration as the effect of a cause.

(7) Fuller information concerning the effect of migration from the United Kingdom to a particular country, say, Canada, would be forthcoming if the trade of the United Kingdom with the remainder of the world were in a stationary state. It may be claimed, for instance, that the relationships we have found above are due to the fact that in a period of boom migration and exports from the United Kingdom to every country are high. It would be of great value, therefore, if it were possible to select a period in which trade between the United Kingdom and the rest of the world, except Canada, were stationary, and in which at the same time migration to Canada were rising. Of course, in actual practice it is not possible to choose a period during which trade between the United Kingdom and most of the world is stationary while at the same time migration to a particular country is active, but by a statistical contrivance known as "partial correlation" the problem can be solved. The method by which this is accomplished need not be discussed here: it is sufficient to point out that the effect is to modify the various correlation coefficients previously found and to make them comparable with the coefficients which could actually be obtained if the trade between the United Kingdom and the rest of the world other than the countries named in turn were stationary. The figures given below should be interpreted in exactly the same way as the correlations previously given, but with the additional restriction that they refer to a state in which the particular trade concerned between the United Kingdom and the remaining parts of the world is supposed stationary. The modified series of coefficients is:—

*Correlations between the fluctuations in emigration from the United Kingdom to the countries named, and the fluctuations in the exports from the United Kingdom when the exports from the United Kingdom to the rest of the world are supposed stationary.*

Migration one Year with Exports	Australia.	Canada.	United States.
Previous year but one . . .	-.02	-.35	-.28
Previous year . . .	+.53	+.01	+.43
Same year . . .	+.05	+.72	+.65
Next year . . .	-.38	-.75	-.48
Next year but one . . .	+.23	-.38	-.02

*Correlations between the fluctuations in emigration from the United Kingdom to the countries named, and the fluctuations in the imports to the United Kingdom when the imports to the United Kingdom from the rest of the world are supposed stationary.*

Migration one Year with Imports	Australia.	Canada.	United States.
Previous year but one . . .	+.26	-.38	+.02
Previous year . . .	-.21	+.42	+.00
Same year . . .	-.31	+.16	+.31
Next year . . .	+.35	-.32	+.10
Next year but one . . .	+.26	+.04	-.34

Taken all round these figures do not greatly differ from those given in paragraph 5 above, and when the periods at which the maximum values are reached

are worked out (in the same approximate way as before) the following results are obtained:—

<i>Exports from the United Kingdom are most closely related to the migration of</i>	<i>The maximum correlation being</i>
One year later in the case of Australia . . .	.53
Two months later in the case of Canada . . .	.75
Two months later in the case of the United States . . .	.73
<i>Imports to the United Kingdom are most closely related to the migration of</i>	<i>The maximum correlation being</i>
15 months earlier in the case of Australia . . .	.40
10 months later in the case of Canada . . .	.46
1 month earlier in the case of the United States . . .	.31

No great modifications in the correlations have been produced by the restrictions introduced in this paragraph.

(8) The results found in the previous paragraphs enable the following general conclusions to be drawn concerning the relationship between external trade and emigration from the United Kingdom according to the experience of 1878–1911.

(i) Exports from the United Kingdom to Canada, Australia, and the United States are more closely associated with British and Irish emigration to those countries than are imports from those countries to the United Kingdom.

(ii) As regards exports, Canada and the United States appear to stand in the same relationship to the United Kingdom. This relationship (.75) is a fairly close one, but it will be noticed that, if anything, exports to those countries precede rather than follow migration. In the case of Australia the association is not so high (.5), but migration to Australia appears to follow exports there from the United Kingdom at an interval of about one year.

(iii) Although the degree of association between migration and imports is not large enough to lay much stress on, so far as the figures can be definitely interpreted they indicate that only in the case of Australia is the wave of migration from the United Kingdom followed by a return wave of imports. For the United States the two waves approximately synchronize, but the imports into the United Kingdom from Canada precede slightly the migration to the latter country.

As the figures do not all point in the same direction it is not possible to draw one comprehensive conclusion concerning the effect of migration on trade, but the balance of the evidence does not favour the view that trade follows migration, but that activity in trade—whatever its genesis—promotes migration. This is not put forward as a universal generalisation, but is the conclusion drawn from the not entirely satisfactory data of the experience of the United Kingdom during the past 30 years or so.

(ii) DOES ANY RELATIONSHIP EXIST BETWEEN EMIGRATION FROM OR IMMIGRATION TO A COUNTRY AND GENERAL PROSPERITY THERE? (The general conclusions formed on this question are stated in paragraph 13.)

(9) A very obvious point suggesting itself for investigation in the present connection is that of the association between migration and the state of employment in the country over a series of years. We could proceed as in previous paragraphs by tracing the figures of migration over the last 30 or 40 years and comparing with the course of some general index of employment throughout the same interval. The general indices of employment available, however, give but rough approximations to the true state of employment, and they are subject to many extraneous influences which render their interpretation of doubtful value. After due consideration it appeared inadvisable to use the Board of Trade index of employment in order to detect any possible association between the state of employment in this country and emigration from it.

Though the general index of employment is not satisfactory for the present purpose, there is one sign of prosperity which is very suitable for the matter in hand. It is generally accepted that the variations in the



marriage rate afford a convenient barometer of the variations of prosperity within a community, and in comparing the conditions of different countries this index is probably a much better one than the statistics of clearing-house returns, pauperism, or any of the other indices that may be used for a single country. The conditions with regard to tendency to marry are, no doubt, not precisely the same in the various countries of the British Empire, but they give a much more reliable basis of comparison than do the other indices which have been employed in previous investigations for England. The number of marriages every year is readily known for each division of the British Empire dealt with in this report except Canada. For each of England and Wales, Scotland, Ireland, Australia, and New Zealand, the figures of marriages and of emigration or immigration have been tabulated over a long series of years and, in the manner indicated in paragraph 2, the deviation of the figure for each year, both for marriages and migration, from the average of the five years of which it is the centre determined. This deviation gives an approximate measure of the degree to which the particular year concerned was one of high or low marriage rate and has been taken as the index of whether that year was or was not above average prosperity. The deviation in the case of the marriages can then be compared with the deviation in the same year or in any other in the case of the migration. It is hardly necessary to set these deviations out on diagrams as was done in the case of the foreign trade in paragraph 2. What we wish to ascertain is whether a positive deviation in the number of marriages is accompanied, on the average, by a positive or negative deviation in the same or any other year in the case of the migration.

(10) As pointed out before, some conclusion can, in a general way, be reached by inspection. This, however, is but a rough-and-ready method, having no scientific value and permitting no sound deductions to be made. The process of determining quantitative coefficients of the degree of association between the various phenomena has consequently again been adopted, and the results obtained from the data worked at can be summarised as follows:

*Correlations between the deviations from the five-yearly average in the number of marriages in the respective countries and the deviation from the five-yearly average in the number of passengers of the nationality stated to non-European countries.*

Number of Marriages one Year and number of Outward Passengers	English. (37 years.)	Scotch. (50 years.)	Irish.* (39 years.)
Previous year - -	+18	+05	+01
Same year - -	+49	+33	-46
Next year - -	+06	-10	-00

It would be more satisfactory to deal with *nett* emigration according to nationality, but the form of the published statistics of migration does not permit this to be done. Moreover "out-passengers" include some who are not true emigrants. But we are concerned with the deviations and not with the absolute numbers of passengers, and a year in which the deviation of outward passengers is large is no doubt one in which the deviation of true emigration is also large.\*

We infer from the correlations stated that a year of activity in emigration from England and Wales is, on the average, a year in which the marriage rate in England and Wales is high, the correlation reaching a moderate value. In the case of Scotland the correlation is not so marked, but is sufficient to indicate some association between the marriage rate and the flow of outward passengers. For Ireland a moderate negative correlation will be noticed, demonstrating that a year of high marriage rate is, on the whole, a year in which emigration is below the average. There seems no reason to suppose that the marriage rate is an inferior symptom of prosperity in the case of Ireland (the marriage rate there, measured in terms of the number of marriageable people, is considerably less than in

Great Britain) than for the other countries concerned, and the figures shown give evidence that in the period under investigation (ending in each case with 1909) for England and Wales, and to a smaller extent for Scotland, emigration occurred for the most part in years of prosperity, but for Ireland emigration was most active in years of adversity. The difference between Ireland and Great Britain is well marked, and brings out the necessity for dealing with these countries separately in such investigations as the present.\*

(11) Turning now to the consideration of the corresponding relationships in the case of the Colonies, we can discuss them in considerable detail for New Zealand, in less detail for Australia, and not at all for Canada. The summary of the results found for Australia is:

*Correlation between the deviation from the five-yearly average in the number of marriages in Australia and the corresponding deviation in the nett immigration of (a) Males, (b) Females from 1868 to 1909.*

Number of Marriages one Year and Nett Immigration	(a) Males. (42 years.)	(b) Females. (42 years.)
Previous year - -	+18	+27
Same year - -	+42	+39
Next year - -	-09	-02

From these figures we deduce that the marriage rate in Australia is most highly correlated with the nett immigration of about two months before in the case of the males and three months before in the case of the females, the maximum values being 43 and 41 respectively. Without discussing the significance of these small intervals of time, the evidence points to the conclusion that, on the average, prosperity in Australia was, in the period under discussion, associated with the flow of immigration to a moderate extent. If anything, the marriage rate seems to have followed by a short period the tide of immigration. It is possible that a little of the correlation found is due to the fact that the immigrants include a number of persons intending to marry soon after their arrival, but the number of marriages of such people in any one year is but a small proportion of the total.

(12) The New Zealand statistics of migration allow of a much more thorough discussion. Details are given of both immigrants and emigrants (in a few years the latter exceeded the former) for males and females over 12 and also for children. The correlations between the deviation in the number of marriages with the deviation in the number of (i) immigrants, (ii) emigrants, and (iii) nett immigrants have been worked out in the same form as before.

*Correlations between the deviation from the five-yearly average in the number of marriages in New Zealand with the corresponding deviations in (i) immigration, (ii) emigration, and (iii) nett immigration of (a) Males over 12, and (b) Females over 12 from 1872 to 1909:—*

Number of Marriages one Year and	(a) Males. 38 years.	(b) Females. 38 years.
(i) Immigration—		
Previous year - -	-01	+12
Same year - -	+38	+32
Next year - -	+27	+16
(ii) Emigration—		
Previous year - -	-17	-02
Same year - -	-30	-11
Next year - -	+26	+09
(iii) Nett immigration—		
Previous year - -	+07	+12
Same year - -	+50	+35
Next year - -	+12	+13

We deduce from these figures that nett immigration into New Zealand was definitely associated with pros-

\* It should be noticed that the figures of migration refer to nationality and not to country of last residence. But no error is likely to arise through taking them to refer to the latter.

perity to about the same extent as in the case of Australia, and approximately to the same extent as prosperity is associated with emigration from England and Wales. The results for immigration and emigration separately indicate that the former was correlated to a fair degree with the marriage rate in New Zealand, but the latter was, if anything, negatively associated with that index of prosperity.

(13) Reviewing all the results collected to throw light upon the association between prosperity (as evidenced by variations in the marriage rate) and migration we can summarise them as follows:—

- (i) Emigration from England and Wales in the last 40 years has been associated to a moderate extent with prosperity in these countries. In the greater part of this period there was little organised emigration. Left to itself population appears to flow from England and Wales in good times rather than in bad.
- (ii) Emigration from Scotland has been to a rather smaller extent associated with prosperity in that country. The economic conditions as regards activity of industry and emigration in Scotland are, on the whole, similar to those obtaining in England and Wales.
- (iii) Emigration from Ireland has been associated to a moderate extent with adversity in that country. Unlike the countries of Great Britain, the flow of population has been greatest in bad times.
- (iv) Nett immigration both of males and females into Australia has been correlated to a moderate degree with prosperity in that country. If anything the marriage rate follows the wave of immigration.
- (v) Nett immigration both of males and females into New Zealand has been correlated to a moderate degree with prosperity in that country, while gross immigration has also, but to a smaller extent, been associated with prosperity there. Emigration of males, however, has on the whole occurred in bad times.

The general conclusion to be drawn from the results of the last three paragraphs is, as regards Great Britain, similar to that stated in paragraph 8, viz., emigration occurs in times of good trade; but the evidence does not indicate that the emigration precedes or in any way causes the prosperity. In the case of Ireland, however, emigration has occurred most in times of bad trade.

(14) Two other interesting matters arising out of the New Zealand figures can be considered. In the first place the relationship between the flow of immigration into, and of emigration from, that country can be exhibited by the following correlations:—

*Correlations between the deviation from the five-yearly average in the number of immigrants into, and the corresponding deviation in the number of emigrants from, New Zealand for the years 1872 to 1909:—*

Immigration one Year with Emigration	Males over 12. (38 years).	Females over 12. (38 years).
Previous year - - -	—20	—14
Same year - - -	+11	+04
Next year - - -	+30	+25
Next year but one -	+03	+01

We conclude from these figures that in the period under review a year of active immigration into New Zealand was followed, on the average, by one of active emigration from that country. The correlation between these waves, however, is only of a small order and little weight can be attached to it.

The second matter which may be referred to is the connection between the flow of male immigrants and female immigrants, and also of male emigrants and female emigrants.

*Correlations between the deviation from the five-yearly average in the number of male immigrants (emigrants), and the corresponding deviation in the number of female immigrants (emigrants) into (from) New Zealand for the years 1872 to 1909:—*

Number of Males one Year, and number of Females	Immigration.	Emigration.
Previous year - - -	+13	—28
Same year - - -	+92	+85
Next year - - -	+01	—08

These figures signify that the waves of male and female immigration are highly correlated and practically synchronize.

(15) Although we have made no use of the general index of employment stated month by month in the Board of Trade *Labour Gazette*, the paragraphs given in that publication on the state of agricultural labour in England afford some interesting material for analysis. This analysis was carried out in order to ascertain if the reports summarised in those paragraphs afford any evidence of the existence of a surplus of agricultural labourers in England. The statements in the *Gazette* relating to employment in the agricultural industry are compiled from the returns made by about 220 correspondents in various parts of the country, and were for many months previous to February 1913 classified in four broad geographical divisions: Northern, Midland, Eastern, and Southern and South-Western counties. Though the statements are purely adjectival and contain no figures, they nevertheless constitute a good basis for forming a general opinion of the state of employment in agriculture. In many cases information is given both for day labourers and also for permanent men, a frequent form of statement being "There was a good demand for extra labourers . . . A surplus of such men was mentioned in the reports from the A. B. C. D. and E districts; in the F and G districts an insufficiency of men was reported. Some scarcity of men for permanent situations was mentioned in the U. V. X. Y. Z districts." The statements for the 34 months ending January 1913 have been analysed and divided into two groups of 17 months for each of the four geographical divisions and for day labourers and permanent men separately. In the table of analysis the statement above was reduced, to "Day Labourers: Surplus, 5; Scarcity, 2. Permanent Men: Scarcity, 5." Not all of the statements were so readily dealt with as the one quoted, but for the most part they indicated whether the supply of labour was equal to, in excess of, or insufficient for, the demand. The following summary has been compiled from the analysis made:—

#### NORTHERN COUNTIES.

*First 17 Months (March 1910 to July 1911).*

Day Labourers.	Permanent Men
Supply in nearly every case said to be equal to or in excess of demand. Surplus of men mentioned on 7 occasions, in some cases in many districts.	Only mentioned twice. In each case an excess of men.

*Second 17 Months (August 1911 to December 1912).*

Day Labourers.	Permanent Men.
Supply in most cases said to be equal demand. But surplus of men in some districts mentioned on 11 occasions and scarcity on 7; in one case 4 districts and in another 5 were mentioned in which scarcity existed.	Only mentioned twice. In each case a scarcity of men.

## MIDLAND COUNTIES.

*First 17 Months (March 1910 to July 1911).*

## Day Labourers.

Supply in most cases said to equal demand. Surplus mentioned on 10 occasions, in some cases in 4, 5, and 6 districts. Scarcity referred to on 3 occasions.

## Permanent Men.

On 2 occasions supply said to equal demand. In 9 months scarcity referred to, sometimes in 3 or 4 districts.

*Second 17 Months (August 1911 to December 1912).*

## Day Labourers.

In early part of this period a surplus frequently mentioned, but caused chiefly by the failure of the root crop in 1911. In the last 9 months of the period surplus only mentioned on 3 occasions, but scarcity in every month—twice in 7, once in 8, twice in 9, and once in 16 districts.

## Permanent Men.

Scarcity referred to in 11 of the 17 months, the number of districts named varying from 2 to 9.

## EASTERN COUNTIES.

*First 17 Months (March 1910 to July 1911).*

## Day Labourers.

Supply generally said to equal demand. A surplus in 1 or 2 districts mentioned on 6 occasions. Scarcity referred to on 15 occasions, in some months in 4, 5, and 6 districts.

## Permanent Men.

Only mentioned twice. In each case a scarcity.

*Second 17 Months (August 1911 to December 1912).*

## Day Labourers.

In the first 9 months a surplus announced on 8 occasions, chiefly due to the failure of the root crop in 1911. In the last 8 months a scarcity referred to on 5 occasions, in one month in 9 districts.

## Permanent Men.

Only noticed three times. In each case a scarcity of men.

## SOUTH AND SOUTH-WESTERN COUNTIES.

*First 17 Months (March 1910 to July 1911).*

## Day Labourers.

Surplus observed in 8 of the months, the number of districts named varying from 2 to 10. Scarcity noticed on 4 occasions, once in 9 districts.

## Permanent Men.

Scarcity referred to in every month but one, the number of districts named varying from 3 to 10 and "many."<sup>\*</sup>

*Second 17 Months (August 1911 to December 1912).*

## Day Labourers.

Surplus noticed in 12 months, particularly towards the end of 1911, the number of districts mentioned being 6, 8, and 10. In the second half of the period scarcity referred to in 7 months, the number of districts varying up to 6.

## Permanent Men.

Scarcity in every month but two, the number of districts named being as many as 8, 9, 10, 12, and 13 in different months.<sup>\*</sup>

It will be noticed that the right-hand column refers to two harvest periods, and the left-hand to one only. This, however, is hardly likely to vitiate any conclusions drawn, as scarcity of men is not, on the whole, more frequently referred to in harvest months than in others. The impressions formed from a study of the summary are:—

- (i) As regards permanent men.—There was undoubtedly a scarcity of such men in the South and South-Western counties, and to a smaller extent in the Midland counties in both periods. By comparing the second period with the first

it will be inferred that the scarcity of men is becoming more marked, and is now appearing in the other divisions of the country.

- (ii) As regards day labourers.—A survey of the summary for the first period does not lead to the conclusion that there was any general surplus or general scarcity of labour, but rather that its distribution was not ideal. In the second period there was a rather more marked scarcity of men, screened, however, by the forced unemployment produced by the failure of the root crop in 1911.

(iii.) WHAT FIGURES ARE AVAILABLE TO ILLUSTRATE THE EFFECT OF MIGRATION ON PRODUCTION AND CONSUMPTION?

(16) The idea underlying this question is to ascertain if an emigrant moving from the United Kingdom to the Colonies increases (a) his producing power (b) his consuming power. It may be said at the outset that there are no direct statistical data bearing on this point. General considerations would, no doubt, indicate that under the modern conditions governing migration both production and consumption are increased, but from the complexity of the subject it is impossible to gather statistics which either certainly prove or certainly disprove this view. For an adequate answer to the question to be given it would be necessary to know the average production and consumption of a body of emigrants from the United Kingdom before emigrating and

the corresponding averages after settling in the Colonies, and it is clear that such data cannot be forthcoming. Much material on general production and consumption in the United Kingdom and the various Colonies has been gathered together, but very little of it can be said to be relevant to the particular matter under discussion.

With reference to the question of consumption, the approximate amounts of certain staple commodities consumed in certain British countries are known for a series of years. The statistics of individual commodities, however, are of little value in the present inquiry. For example, in New South Wales between 1905-6 and 1909-10 the consumption of flour, oatmeal, and rice per head diminished from 251 to 238 lb., but that of butter increased from 22.1 to 25.4 lb., and no opinion can be formed from such facts as these on the tendency of consumption in general. For proper comparison it is necessary to employ some general index of con-

\* It is stated that the scarcity of men is frequently for work, e.g., milking, requiring Sunday labour

consumption which will allow of the variations in the consumption of *all* commodities being taken into account. Such an index is shown for the years 1880–1911 in the recent "Report of Commission on the Cost of Living in New Zealand" (1912) and is given below. A similar index, too, is discussed in the lately published "Prices, Price Indexes, and Cost of Living in Australia" (No. 1), issued by the Commonwealth Bureau of Census and Statistics (Labour and Industrial Branch), but the indexes there are given only for 1911 and the quinquennial periods 1903–7, 1905–9, and 1907–11. For Canada no such indexes can be formed; for the United Kingdom approximate indexes could be found by means of the figures of imports and exports and the agricultural returns for a number of commodities over a series of years, but would involve a large amount of labour. This labour would not be repaid by the light the results would throw upon the problem in hand, since (1) it is necessary that the bases upon which the indexes for different countries are formed should be the same—i.e., if we take 1,000 to represent the general consumption per head in the United Kingdom in 1911 and the same figure as the index for Australia in that year, we must ensure that the 1,000 in each case refers to the same amounts of consumption, (2) the index gives only the average measure of consumption over the whole population in a particular country, and it is unwarranted to assume that the emigrant population from the United Kingdom is drawn from that particular portion of the people with average consuming power. Even assuming that the conditions indicated in (1) and (2) are satisfied, the fact that in a year in which a large number of emigrants are removed from the United Kingdom to Australia the index of consumption per head was, say, 900, and in the next year it rose to 920, while the corresponding index for Australia increased from 950 to 970, cannot be taken as certain evidence that the migrants increased their consuming power. For these reasons the only indexes of consumption per head which are given here are those already published for New Zealand and Australia. The New Zealand figures (together with certain other interesting statistics) are : \*

Year.	Index of Consumption per Head.	Nett Immigration.	Index of Marriage Rate.	Index of Bankruptcy Rate.	Index of Volume of Liquor consumed per Head.
		Thousands			
1880	102	7.2	104	411	—
1881	123	1.6	103	396	—
1882	144	3.5	109	356	—
1883	131	10.0	106	412	—
1884	123	9.3	106	205	—
1885	122	4.5	103	233	119
1886	112	1.1	93	246	113
1887	104	1.0	93	230	109
1888	97	—9.2	93	195	110
1889	98	0.2	92	165	97
1890	95	—1.8	95	142	108
1891	95	—3.2	94	130	105
1892	108	5.0	96	107	107
1893	108	10.4	96	100	103
1894	106	2.3	95	129	97
1895	103	0.9	99	96	95
1896	111	1.5	96	80	90
1897	121	2.8	95	79	93
1898	122	2.7	95	74	94
1899	125	1.9	92	70	98
1900	146	1.8	94	56	103
1901	160	6.5	96	39	108
1902	155	8.0	95	34	105
1903	174	11.3	97	31	107
1904	183	10.4	99	41	106
1905	171	9.3	100	47	102
1906	187	12.8	99	52	107
1907	196	5.7	100	53	113
1908	196	14.3	100	61	114
1909	171	4.7	100	71	104
1910	191	3.4	96	60	107
1911	195	4.2	—	—	—

A Parliamentary Paper giving "Consumption of Articles in Common Use" per head of population was issued in New Zealand in 1912—Session II., H.9.

The Australian figures (together with certain statistics of the deposit banks) are :—\*

—	1903–7	1905–9	1907–11	1911
Index of consumption of 16 articles . . .	876	903	943	1,000
Index of number of depositors per 1,000 of population . .	790	845	912	1,000
Index of average amount of deposit . . .	865	900	951	1,000
Index of deposit per head of population . .	685	762	869	1,000
Average nett immigration (thousand) . . .	—5.1	5.0	26.3	69.3

The feature of the figures in the table for New Zealand is that the index of consumption was lowest in that period (1887–1891) in which 13,000 more people left the country than entered it, and that in the years of the present century, with a considerable influx of immigrants, the index of consumption has reached very high values. In the case of Australia the index rose with the volume of immigration. *In each country the evidence associates a high index of consumption with active immigration.* This does not, however, justify the assumption that the activity in immigration is, to any extent, the *cause* of the increase in consumption, and in the light of the results previously found upon the association between migration, trade, and general prosperity, it is more logical to assume that the boom in migration and the higher consumption are merely separate indications of general prosperity.

When we come to consider the question of the effect of migration on production in the various countries the difficulties are greater, and the material more sparse. The *Summary of Commonwealth Production Statistics*, published annually during the past few years, contains much information concerning the production of individual commodities and articles of commerce. But, again, it is necessary to use a general index of total production per head, and such indexes have only been given for the years 1908–11. The latest available figures are (Bulletin No. 6 (1902–11), p. 106, No. IX.):

Year.	Mid-year Population.	Total Production.	Total Production less Manufactures.	Total Production per Head.	Total Production less Manufactures per Head.
	(000)	(£000)	(£000)	£	£
1906	4,060	—	115,850	—	28.5
1907	4,124	—	129,871	—	31.5
1908	4,194	164,957	128,320	39.4	30.6
1909	4,275	174,583	134,385	40.8	31.4
1910	4,370	187,734	142,136	43.0	32.5
1911	4,490	188,745	137,814	42.0	30.7

The figures of total production per head fluctuate from year to year, but there appears to have been an increase in total production per head during a period of growing immigration.

As regards New Zealand, the annual volume of "Statistics of the Dominion of New Zealand" has a whole section devoted to production statistics. This contains much information upon agricultural production, and also upon the output of many individual industries. It gives no general index of production for

\* The actual amounts consumed per head of 16 commodities and the corresponding indexes are given in full on p. 85 on the report "Prices, Price Indexes, and Cost of Living in Australia," previously referred to.

the whole country year by year, however, and consequently throws no direct light upon the present subject.

For Canada, certain bulletins of the census of manufactures and the census of dairy industries for the year 1910 have been published, but those upon other parts of agricultural industry have not yet been issued. The census of manufactures gives figures showing the production at 5-yearly intervals, but no direct comparison of the total production of Canada with the course of migration is possible, and the figures need not be considered here. Nor can anything definite concerning the total production per head, and its relation to emigration, be shown for the United Kingdom. Details of agricultural production are known, but the recent report of the Census of Production is the first attempt to determine the aggregate production of the manufactures of England and Wales, and the results afford no material for the discussion of the problem in hand.

To sum up the results of the investigation carried out in this section: there are no proper statistical data to enable a well-grounded opinion to be formed of the increase in consuming and producing power of emigrants when removed from the United Kingdom to the Colonies. The little evidence which the Australian and New Zealand statistics afford indicates that consumption per head rises in times of active immigration, and is low when immigration is slack. There is just a little evidence, too, favouring the view that production per head in Australia increases with immigration. These conclusions are quite consistent with the results previously found upon the association between migration and prosperity, and do not necessarily demonstrate that the activity in migration is to any extent the *cause* of the increase in production and consumption.

(iv) THE POPULATION AND VITAL STATISTICS OF THE VARIOUS COUNTRIES, AND ESTIMATES OF FUTURE POPULATIONS.

(17) In this section the population and vital statistics of the various parts of the Empire previously dealt with are discussed. In addition to the actual census figures published at decennial periods, certain aspects of the fertility and mortality figures of the different countries are important in connection with estimates of future populations, and although it is not possible to take into account every one of these figures in the attempts made later on at estimating the future population of the various countries, their consideration will be of some service.

Table II. shows for England and Wales, Scotland, Ireland, Australia, New Zealand, and Canada, the actual census populations (in most cases) since 1861, both for males and females, distinguishing adults from children. The age 15 has been taken as the division between these; this was necessary in order to obtain uniform figures, since in some early census reports quinquennial age-groups alone are employed.

Table III. shows for each country and census the proportion of the population under 15 to the corresponding total population, and Table IV. the increase in the various populations in the intercensal periods.

The points to be noticed in these tables are:—

- (i) In every country the proportion of males and females under 15 to total males and females is diminishing.
- (ii) The proportions for males are no higher in the Colonies than in the old countries of the United Kingdom.
- (iii) In England and Wales, and in Scotland, between 1861-71, and again between 1871-81 (except the males in Scotland) the population under 15 increased more rapidly than did that over 15. The falling birth and death rates have been chiefly responsible for a complete change, so that in the last two decennia the population over 15 increased about three times as fast as the younger population. In Ireland the loss of population during the past 30 years has been proportionally greater at ages under 15. The figures for the Colonies fluctuate considerably, but the same phenomenon of a diminishing rate of increase of the child population is evident. New Zealand appears to have picked up

considerably in the last decade, the increase in the child population in the previous one having been negligible.

(18) To show in detail the means by which the various increases in population have accrued Tables V. and VI. have been drawn up. Table V. shows the numbers of births, deaths, and nett migration for intercensal periods, both for males and females, for each of the countries except Canada.\* For Australia and New Zealand the nett migration in the 10-year periods are given directly from official sources. For the United Kingdom, however, these have been estimated from a knowledge of the census populations and the births and deaths registered. The estimates are probably not quite exact, but are sufficient for the present purpose, and have been given to the nearest thousand only. Table VI. shows the birth-, death-, migration-, and total increase rates in each case. These are based upon the mean of the census populations at the beginning and end of the periods referred to.

The points brought out by these tables are:—

- (i) The rate of increase of the population in the whole of that portion of the Empire under consideration was appreciably greater in the latest decade than in the previous one—for males the rate of increase rose from 10.1 per cent. to 12.5 per cent., and for females from 10.4 per cent. to 11.4 per cent. The large excess in the rate of increase of males in 1901-10 over females is conspicuous, as in all previous periods the rates of increase of males and females had been approximately the same. The only *individual* country in which a considerable change in the relative rate of increase of males compared with females occurred was Canada. Had the male population there increased at the same rate as the female, the effect on the population of the aggregate of the countries would have been that the rate of increase of the males was reduced to be practically the same as the females, as was actually the case in previous decennia. This is some evidence that Canada received an excess of males from places outside the Empire, and is no doubt accounted for by the influx of farmers and others from the western provinces of the United States.†

\* The numbers of births and deaths in Canada are not known for every year, but only for census years. For the province of Ontario, however, the numbers of births and deaths registered every year are known.

† On the question of the migration between Canada and the United States the following figures from the United States Immigration Reports are of interest:—

MOVEMENT FROM CANADA TO UNITED STATES.

	U.S. Citizens.	Canadian Citizens.	Others.	Total.
1911-12	38,317	42,649	26,977	109,943
1910-11	31,432	44,439	29,641	105,512
1909-10	22,832	44,310	27,356	94,528

MOVEMENT FROM UNITED STATES TO CANADA.

	U.S. Citizens.	Canadian Citizens.	Others.	Total.
1911-12	97,951	20,086	25,214	143,251
1910-11	74,197	17,078	28,178	119,753
1909-10	78,697	15,023	22,477	116,377

The question of analysing the movement of population between Canada and the United States is a difficult one. From a special inquiry referred to in the report for the year ending June 1909, it was inferred that not less than three-sevenths of the so-called Canadian citizens referred to above were originally American citizens returning to the United States after sampling Canada. At the same time, however, it appears that the movement into Canada exceeds that out of it. The recently issued bulletin of the census of Canada on "Origins of the People" throws no light upon the increase in the number of natives of the United States domiciled in Canada.

- (ii) The fall in the birth and death rates has been general throughout all the countries. In New Zealand the decline in the former—which was very rapid between 1881 and 1901—appears to have been arrested, and more exact material given later on indicates that a similar point is being reached in Australia. The figures in Table VI., however, are given solely to show in what manner the increase in population accrues, and are not intended to represent correct indices of fertility. These are arranged in Tables VII. and VIII.
- (iii) The apparent paradox that whereas in the United Kingdom the male birth rate is greater than the female, while in Australia and New Zealand the reverse is the case, is explained by the fact that there is an excess of males in the last two countries but of females in the United Kingdom. The rate of increase due to births in Ireland is low, but this is accounted for by the small proportion of married people (see Table IX.). The rate of loss due to death is much smaller for Australia and New Zealand than for the United Kingdom.
- (iv) The total rate of increase is diminishing in England and Wales and, with fluctuations, also in Scotland and the Australasian Colonies. The drain of population which had been manifest in Ireland for many years, appears to have been arrested since the opening of the present century. In Canada, after three decades of declining rate of increase, a very considerable rise has occurred since 1901.
- (v) Taking the aggregate of the countries referred to in Table V., it will be noticed that the birth and death rates over the whole have steadily diminished, and that in each decade there was an excess of emigration from those countries. The rate of increase, both for males and for females, when Canada is included, has never fallen below 10 per cent. of the mean population in 10 years, and during the past 30 years has risen rather than fallen. The figures of the *total population* included within all the countries at the past five censuses, together with the corresponding rates of increase on the mean intercensal populations are:—

Census.	Total Population. (000.)	Rate of increase on Mean Population per cent.
1871 - -	37,089	1871-81—12.3
1881 - -	41,950	1881-91—10.0
1891 - -	46,367	1891-1901—10.2
1901 - -	51,378	1901-1911—11.9
1911 - -	57,890	

The corresponding increases in the case of the United States were 26.2, 22.1, 18.9 and 19.4 per cent. respectively, the population at the last census (1910) being 91,972,000.

(19) The figures given in Table VI. are sufficient to demonstrate that the rate of increase of the population by means of births is diminishing, but do not accurately disclose the true state of affairs as regards the decline in fertility of the people. As this is important in connection with the future population of the Empire, it is discussed in some detail in this paragraph. The usual method of measuring the fertility of a particular population is by ascertaining the number of children born to 1,000 married women of child-bearing ages. Table VII.

shows the number of legitimate births per 1,000 married women between 15 and 45 for as many countries and States as possible for each census year from 1861. The most striking feature of this table is the fall in the fertility rate for England and Wales, Scotland, and the Australasian colonies since 1881, and the fact that there has been practically no decline at all among the Irish women. A further point to be noticed is that the fall in Australia appears to have been arrested during 1901-1911, in which period it continued unabated in Great Britain. The married women of England and Wales in 1911 had the least fertility of these in any part of the Empire under consideration, and the Irish women the greatest. It would be of great interest to know if this higher birth rate among women of Irish birth is general all over the world. No adequate answer can at present be given, but the point is referred to below. Certainly in England the towns with the largest proportions of Irish population show the higher fertility rates. The fact that the actual fertility of Irish women is large while the rate of increase by births is low, is explained by the low proportion of married people in Ireland (see Table IX.).

Another convenient way of indicating the relative fertility rates in different countries and their course over a series of years is by means of a table showing the number of births in each census year per marriage in the previous year. This is given in Table VIII., the figures referring to total number of births.

The number of births per marriage has fallen most in New Zealand and Australia, and least in Ireland. In 1911 it was approximately the same in England and Wales as for the Australasian colonies.

(20) For the full interpretation of the figures in the last paragraph the corresponding marriage rates must be considered. The most satisfactory way of doing this is to show the proportion of married men and women to the corresponding total numbers in certain age groups. Table IX. gives these figures for the parts of the United Kingdom and the Australasian colonies for the last two censuses. The corresponding proportions cannot be given for Canada.

The feature brought out by Table IX. is the exceedingly low proportion of married people in Ireland. For males, at the age group 20-25, the proportion of married men in England and Wales is three times as great as that in Ireland, and is considerably higher than that of any of the other countries. At ages 25-35 the proportion in England and Wales is twice as great as that in Ireland, and again considerably in excess of that of each of the other countries. The differences become less marked at older ages, but still exist. Turning to the figures for females, the proportion in England and Wales is, on the whole, slightly less than those in the Colonies, but is, in the early age groups, twice as great as the corresponding one in Ireland. In comparing the figures for 1911 with those for 1901, a diminution in the proportion of married people—both males and females—is manifest in England and Wales, Scotland, and Ireland, but for Australia and New Zealand the proportion increased. The proportions in the Australasian colonies, however, are still considerably less than those obtaining in Great Britain.

In reading Table IX. the excess of females in England and Wales and of males in the Colonies must be borne in mind. Figures to illustrate this point have been collected in Table X. This shows the excess in the number of unmarried females over unmarried males in age groups at the censuses of 1901 and 1911 for each country (except Canada), and for the urban and rural districts of England and Wales separately in 1911.

Bearing in mind the fact that the age at marriage for women is generally less than that for men, Table X. is, nevertheless, instructive and rather modifies some general impressions. In 1911 the number of unmarried females in England and Wales between 15 and 55 exceeded the number of men between these ages by 189,700, but this was practically all accounted for by the ages over 35. In fact, between 20 and 30 there was an actual excess of unmarried males in England and Wales of 33,600. The details for urban and rural districts indicate that the surplus of males was entirely in the rural districts (76,500 between 20 and 30), the females exceeding the males in the urban districts



to the extent of 42,900. Domestic service, of course, accounts for much of this difference, but the figures have bearing upon the subject of the migration of young unmarried women to the colonies. In this connection it may be appropriately noticed that the excess of unmarried females between 15 and 35 diminished from 38,900 in 1901 to 7,100 in 1911, while between 35 and 55 there was a corresponding increase from 127,600 to 182,600. The feature of the figures for Ireland is that they show an excess of unmarried males at every age group, and in this respect that country resembles the Colonies. For Australia the excess of unmarried males between 15 and 35 grew from 108,700 in 1901 to 123,700 in 1911, and for New Zealand from 19,700 to 38,700. The columns giving the totals for the whole of the countries concerned are interesting. They show that the total excess of unmarried males between 15 and 35 increased from 165,800 to 248,300 between 1901 and 1911, while at the same time the surplus of unmarried females between 35 and 55 expanded from 52,300 to 99,700.

(21) In view of the opinions frequently expressed (*see, for example, the answers to questions 981-990 and No. 17 (c) on p. 240 in Appendix II, in the Minutes of Evidence taken by the Commission in London during October and November 1912 [Cd. 6516]*) upon the existence in England and Wales of a large surplus of women suitable for emigration to the Dominions a more detailed analysis of the statistics is desirable. These opinions, it may at once be pointed out, rest upon a superficial perusal of the statistical evidence and are not supported by a more thorough investigation. As shown above, in spite of the considerable excess in the number of females over males in England and Wales the surplus of unmarried women of emigrable ages (say 15-35) over men between the same ages is quite small,\* and it is indicated below that even this small surplus is not of the type that is urgently required by the Colonies and can at the same time be spared by ourselves. Further results from the recent census will be required before a perfectly complete analysis can be made, but sufficient data already exist to show that the geographical distribution of the excess accords generally with the distribution of social status. In the better-class districts the surplus of women is most pronounced, while in the poorer districts there appears to be an appreciable surplus of unmarried men between 15 and 35.

In the case of the London boroughs this can be amply demonstrated. The difficulty is to get an adequate measure of social status, but two of those used by Heron are quite satisfactory for the present purpose. These are, (a) the proportion of professional men per 1,000 occupied males, and (b) the number of domestic servants per 100 families. Table XI shows these for each of the London boroughs for 1901† together with the number of unmarried males and females both between 15 and 35 and also between 35 and 55 at the census of 1911, and the corresponding surpluses.

The two criteria of social status agree fairly well, but the chief point brought out by the table is that there is no excess of young unmarried women in the poor boroughs of the east and south-east of London. The surplus in London is wholly in the more wealthy parts, and consists largely of domestic servants: a

scarcity of whom already exists in this country—and probably to a smaller extent of better-to-do women, whose emigration the Dominions do not vitally need.

The places in the table can readily be arranged in three groups according to social status—Group I, consisting of the first 10, Group II, of the next 9, and Group III, of the last 8. The details concerning these groups are:—

Age Group.	Group I.			Group II.			Group III.		
	Unmarried Men.	Unmarried Women.	Surplus of Women.	Unmarried Men.	Unmarried Women.	Surplus of Women.	Unmarried Men.	Unmarried Women.	Surplus of Women.
	In Thousands.			In Thousands.			In Thousands.		
15-20	48.8	63.6	14.8	80.3	81.1	3.8	58.3	57.5	-0.8
-25	18.0	71.5	23.5	68.8	69.8	1.0	43.1	39.9	-3.2
-30	30.1	51.3	21.2	49.5	39.1	-1.1	23.2	17.0	-6.2
-35	16.1	31.3	15.2	29.8	22.3	-1.5	12.0	8.0	-4.0
-40	10.2	22.1	11.9	12.3	15.1	3.1	7.6	4.8	-3.8
-45	7.0	16.4	9.1	8.4	11.4	3.0	5.6	3.4	-2.2
-50	5.3	12.8	7.5	6.1	8.8	2.7	4.2	2.6	-1.6
-55	4.2	9.3	5.1	1.3	6.7	2.4	3.3	2.0	-1.3
15-35	143.0	217.7	71.7	210.4	215.6	5.2	136.6	122.4	-14.1
35-55	26.7	60.6	33.9	31.1	12.3	-11.2	29.7	12.8	-16.9

It will be noticed that while there were at the date of the census, 1911, in the whole of London, 66,000 more unmarried women than unmarried men between 15 and 35, this surplus was more than accounted for by the better parts, and that in those places where factory and home work are common, there was an actual excess of more than 14,000 in the number of unmarried men over unmarried women between those ages. These figures give no countenance to the view that there are in London many thousands of unmarried women who could, with general advantage, be removed to the Colonies.

Similar conclusions follow from the study of the figures relating to outer London. The census volume referring to age and conjugal condition, gives details for only 15 localities in outer London (counting Southend in this category), and these readily admit of division into two groups according to social status (the actual criterion adopted in the division was the corrected birth-rate, which has been demonstrated to give a good measure of social status). East Ham, Leyton, Walthamstow, West Ham, Edmonton, Enfield, and Tottenham form a lower group, and Ilford, Southend, Acton, Ealing, Hornsey, Willesden, Croydon, and Wimbledon an upper group. The figures for these groups are:—

Age Period.	Upper Group.			Lower Group.		
	Men.	Women.	Surplus Women.	Men.	Women.	Surplus Women.
15-20	27.1	31.7	7.6	42.8	42.9	0.1
-25	22.0	30.5	8.5	30.4	29.7	-0.7
-30	13.2	18.8	5.6	15.5	13.9	-1.6
-35	6.5	11.1	4.6	7.2	7.1	-0.1
-40	3.6	7.9	4.3	1.2	1.1	-0.1
-45	2.3	5.8	3.5	2.6	2.9	0.3
-50	1.5	4.1	2.9	1.8	2.3	0.5
-55	1.2	3.3	2.1	1.2	1.5	0.3
15-35	68.8	95.1	26.3	95.6	93.6	-2.0
35-55	8.6	21.4	12.8	9.8	11.1	1.3

The difference in social status between these two groups is not so great as between Group I. and Group III. of the London boroughs, but the same tendency of the segregation of the surplus unmarried women into the better parts is manifest. In spite of the considerable extension of women labour in factories of recent years and the consequent scarcity of domestic

\* Even if, remembering that the average age at marriage of men in the whole of England and Wales is between a year and a half and two years higher than that of women, we compare unmarried women (15-35) with unmarried men (17-37) the excess of women is only about 500,000 instead of the 1,179,000 referred to in the Memorandum of the British Women's Emigration Association. This figure, however, is apt to be misleading unless it also be remembered that the difference in age at marriage between men and women in the upper classes is much greater than in the classes with which the emigration societies chiefly deal. In the artisan and labouring classes the difference is much less than in the professional and commercial classes. Moreover, the facts brought out with regard to the distribution according to social status of the surplus of women (15-35) over men (15-35) will still hold with regard to the surplus of women (15-35) over men (17-37).

† Taken from Dr. Heron's memoir "On the Relation of Fertility in Man to Social Status" (1906). London, Dulau & Co.

servants, there is an actual deficiency of unmarried women (compared with men of the same age) in those places from which the female factory workers are drawn.

The figures published by the census authorities do not permit us to ascertain the extent to which there is an excess of unmarried females in all the seaside and other health resorts. Details are known, however, for seven of these places—Brighton, Eastbourne, Hastings, Bournemouth, Bath, Southport, and Blackpool—and these admit of the following summary (in thousands):—

	15-20.	20-25.	25-30.	30-35.	35-40.	40-45.	45-50.	50-55.	30-35.	35-55.
Men	17.8	14.0	8.1	4.4	2.4	2.0	1.4	1.0	443	68
Women	25.0	23.0	15.3	10.1	8.1	6.4	5.4	4.4	734	243
Excess of Women	7.2	9.0	7.2	5.7	5.7	4.4	4.0	3.4	29.1	17.5

The surplus of unmarried women between 15 and 35 in the seven towns amounted to over 29,000.

Enough examples have been given to show that the surplus female population of England and Wales is not of the sort which can be readily emigrated with general advantage. It may be useful, however, in this connection to show the number of unmarried males and unmarried females between 15 and 35 in each county or division of county for which figures are available\*, and this has been done in Table XII. for the aggregate of the metropolitan and county boroughs, the remaining urban districts, and the rural districts in each division or county. The compilation of the table has been done throughout to the nearest hundred, but the figures

shown are quite accurate enough for all practical purposes. It will be noticed that as regards rural districts only in the counties of Middlesex, Surrey, and Westmoreland are the females in excess. Besides the metropolitan districts, the urban localities in which the surplus of females is most marked are in Lancashire, the West Riding of Yorkshire (in both of which there is much well-paid female labour), and in Gloucestershire. A surplus of males in urban districts is prominent in the mining counties of Durham and Glamorgan and in Hampshire and Staffordshire.

(22) Before discussing in detail certain mortality figures there is one other aspect of the birth-rate problem which may be referred to. This concerns the relative fertility of the native and immigrant populations living in the Colonies. The only available data upon this are derived from the Annual Reports on "Population and Vital Statistics" of the Australian Commonwealth. To avoid possible errors it is necessary to deal only with the figures for a census year, and those for 1911 have been analysed. In the bulletin of the Commonwealth census of 1911 relating to birth-places of the population, the numbers living in each quinquennial age period both of males and females are shown according to birthplace. It is desirable to know the actual number of *married women* instead of the total number of women, but this information has not yet been published. As there may be differences in the proportions of married people according to birthplace, the analysis below can only be considered approximate. Table XIII. shows the number of men and of women between certain age limits according to birthplace at the Australian census of 1911, the total number of births to each group in 1911, and the corresponding birth-rates.

For convenience of inspection the table has been condensed to the following form:—

Birthplace.	Number of Women, 15-45.	Number of Women, 20-40.	Number of Births.	Births per 100 Women, 15-45.	Births per 100 Women, 20-40.	Number of Men, 20-45.	Number of Men, 20-55.	Number of Births.	Births per 100 Men, 20-45.	Births per 100 Men, 20-55.
United Kingdom	81,784	58,241	9,339	11.4	16.1	117,699	190,874	14,439	12.2	7.5
Australasia	936,505	624,626	110,973	11.9	17.8	714,297	856,569	97,073	13.6	11.3
Certain Foreign Countries	5,205	3,762	822	15.8	21.9	13,102	19,036	1,538	11.7	8.1

In commenting upon these figures the important restriction that the populations are not those of married men and of married women must be emphasised. But the figures do enable us to say if the people of any particular birthplace produce a proportionally greater number of children. It appears that the Italian and German women in Australia in 1911 had the greatest birth-rate, and the women from the United Kingdom the least. The men of Italy and the United States, however, have quite low birth-rates. Not much stress should be put upon these tables, and they should be repeated when the information concerning the number of married men and of married women is available.

(23) With regard to the mortality in the various countries certain figures have already been given in Table VI. This shows the crude death rates for a number of decennial periods, and indicates that the rate of loss by death in Australia and New Zealand is considerably less, both for males and females, than the corresponding rates of loss in the different parts of the United Kingdom. This is to some extent accounted for by the fact that mortality is chiefly dependent upon age, and that the Colonies have a rather smaller proportion of old people than have the countries of the United

Kingdom. The following figures, relating to the censuses of 1911, refer to this point:—

#### PROPORTION OF TOTAL POPULATION IN AGE GROUPS.

Country.	Under 15.	15-35.	35-55.	55-75.	Over 75.
England and Wales	.31	.34	.23	.10	.02
Scotland	.32	.34	.22	.10	.02
Ireland	.30	.32	.21	.14	.03
Australia	.32	.36	.23	.08	.01
New Zealand	.31	.38	.21	.09	.01

The only point in connection with mortality which has been investigated in detail is that of the relative death rates of the native and immigrant populations in Australia. The fact that the native population in the New England States of America (viz., Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut) has a lower mortality than the English, and especially the Irish, immigrants has been

\* All the counties in South Wales, other than Glamorganshire, have been grouped together, and likewise all the counties in North Wales.

commented upon by those dealing with mortality figures, and the volumes of Australian vital statistics enable light to be thrown upon the experience of the Commonwealth in this respect. The problem is not a simple one, since in all mortality investigations it is essential to make allowance for age effects, and the immigrant population in Australia differs vastly in age distribution from the native population. In order to have the fullest possible information on the question it is necessary to consider the mortality only for a census year, and 1911 is the only one for which the figures are available.

The manner in which an adequate comparison of the mortality of the Australian natives and the immigrants can be effected is as follows:—

Taking the death-rate of the population of the whole of the Commonwealth aged 15–19, and multiplying by the number of people between those ages in Australia who were born in the United Kingdom will give the number of deaths ( $d_1$ ) which would have occurred in that immigrant group if they had suffered the same rate of mortality as did the whole population of the Commonwealth. If

the actual number of deaths ( $D_1$ ) among the immigrants aged 15–19 from the United Kingdom were appreciably greater than ( $d_1$ ), we could argue that the particular immigrant population suffered from a heavier mortality than the native population. A similar process can be applied to the age-groups 20–24, 25–29, and 30–34, and numbers  $d_2$ ,  $d_3$ , and  $d_4$  obtained to indicate the deaths which would have occurred if the immigrants in those age-periods had suffered the general mortality, instead of their actual mortality which gave rise to deaths numbering  $D_2$ ,  $D_3$ , and  $D_4$  in the three groups respectively. Then if the sum  $D_1 + D_2 + D_3 + D_4$  is appreciably greater than  $d_1 + d_2 + d_3 + d_4$  it would be inferred that the immigrant population 15–35 had a heavier death rate than the corresponding native group. Table XIV. shows the actual number of deaths and also the number which would have occurred on the basis of the standard experience of the whole Commonwealth for the age-groups 15–34 and 35–64 for the men and women born in the stated countries and Colonies.

Grouping the figures in this table we derive the following general outline:—

Birthplace.	15–34.			35–64.		
	Actual Number of Deaths.	Number of Deaths which would have occurred if the Mortality of the Standard Population applied.	Index of Mortality.	Actual Number of Deaths.	Number of Deaths which would have occurred if the Mortality of the Standard Population applied.	Index of Mortality.
MALES.						
United Kingdom	392	303	129	3,166	2,972	107
Australasia -	2,467	2,683	92	4,023	4,621	87
Germany, Italy, & United States -	35	36	97	239	256	93
FEMALES.						
United Kingdom	179	178	101	1,715	1,597	107
Australasia -	2,611	2,570	102	3,321	3,380	98
Germany, Italy, & United States -	8	11	73	73	94	78

One difficulty in the interpretation of these figures lies in the fact that there were in the whole Commonwealth 56 and 328 deaths respectively in the two age groups for males and 21 and 66 in the corresponding groups for females in which the birthplace was unspecified. But as we are going to use the figures solely to point out the higher mortality of the immigrants from the United Kingdom we are on the right side, since the inclusion of these deaths of unspecified birthplace would increase the figures in the column showing “actual number of deaths,” and thus raise the index.

The figures on which the index for the United Kingdom is based are sufficiently large to assert definitely that the mortality of male immigrants, particularly between 15 and 34, from Great Britain and Ireland is greater than that of the native males. In the case

of the females no definite difference can be demonstrated for the younger group, and comparatively little for the other group. There are, of course, other factors—occupation, geographical situation, etc.—to be considered in the complete investigation of this problem, and unless these are approximately the same for the immigrant and native populations some differences in the indices would be anticipated. The possibility, too, that the emigrants from the United Kingdom to Australia have included a number of weak people moving for health reasons must also be borne in mind. Q

We cannot state exactly the mortality of the home population from which the emigrants are drawn, but the following figures show the mortality in 1911 of certain portions of the population of England and Wales compared with that of Australia:—

Age Group.	Actual Number of Deaths.				Number of Deaths which would have occurred if the Mortality of the Commonwealth at individual Age Groups applied.				Mortality Index.			
	All England and Wales.	Urban Districts.	Rural Districts.	London.	All England and Wales.	Urban Districts.	Rural Districts.	London.	All England and Wales.	Urban Districts.	Rural Districts.	London.
MALES.												
15–34	24,967	20,261	4,706	3,148	23,198	18,265	4,933	2,921	108	111	96	108
34–65	76,212	63,090	13,122	11,202	67,919	51,823	16,096	8,430	112	122	82	133
FEMALES.												
15–34	23,774	19,202	4,572	3,263	22,922	18,436	4,486	2,784	97	96	98	85
35–64	54,812	42,616	12,196	7,107	65,477	53,773	11,704	9,038	120	126	96	127

It is difficult to draw any definite conclusions from a comparison of these figures with those in Table XIV., since, among other reasons, we are not able to assume that the emigrants from England and Wales to Australia are a random sample from any one of the four populations above. The indices suggest that the males between 15 and 35, in Australia, of English and Welsh origin have a higher death rate than the corresponding male group here, but the difficulties in the way of an adequate comparison of the figures are too many to permit much weight being given to this conclusion.

(24) The question of the heavier mortality of the immigrant than the native population in Australia can be looked at from another point of view. The volumes of "Commonwealth Vital Statistics" state the number of deaths in quinquennial age groups according to length of residence in Australia. From this information Table XV. has been constructed on a similar basis to Table XIV.—the condensed arrangement of the figures showing also the indices of mortality according to certain periods of length of residence.

The most definite conclusions which can be drawn from the indices are: (1) the mortality of the male immigrants between 15 and 34 is considerably greater in the first five years of residence than that of the native population between those ages; (2) the mortality of the male immigrants between 35 and 64 and of over 20 years' residence is rather less than that of the native population between those limits of age. No definite difference can be asserted on the basis of the figures shown to exist between the mortality of the native and the immigrant females. The evidence is not inconsistent with the hypothesis that there is a weeding out of the weakly from the male immigrants in their early years in Australia, and that in subsequent years they suffer from a lower mortality than the native Australians.

(25) We have now discussed a number of the factors which may be expected to affect the future population of the countries considered, and in this paragraph the results of an attempt to make estimates of those future populations are given. No certainty whatever attaches to the estimates made to predict future populations. All that can be done is to employ, for purposes of calculation the experience of the past. If this experience continues in the future the prediction

will be approximately correct, and the likelihood of this occurring is roughly proportional to the magnitude of the populations dealt with. More weight is to be attached to the estimates made for the whole of the Empire, and for England and Wales, than for the sparsely populated country of New Zealand. After some preliminary investigation it was decided to make estimates not by considering in detail the courses of the birth, death, and migration rates for each country, but chiefly from the consideration of the *total* rates of increase in each case. This is made the more necessary by the desirability of dealing with children and adults separately.

The rates of increase of the male and female populations in each country, both under and over 15, have been considered in detail in paragraphs 17 and 18 and Tables IV. and VI. By studying these rates of increase and considering the tendencies of the other factors affecting population certain maximum and minimum rates of increase which it appears reasonable to assume for the next 10 years are suggested. Thus inspection of the figures for England and Wales in Table IV., and general consideration on the fall in the birth and death-rates and the activity in emigration, suggests that it is not unreasonable to assume that the male population under 15 will increase in the intercensal period at a rate of between 4 per cent. and 8 per cent. of the mean intercensal population, and that the corresponding population over 15 will increase at between 10 per cent. and 14 per cent. The proper rate of increase to assume can be a matter of opinion only, and arguments can, no doubt, be brought against the assumption of any particular figure. But no other method is warranted, and a verification is possible by ascertaining if the sum of the estimates made for the sub-populations is not incongruous with the estimate obtained on the assumption of a reasonable rate of increase for the whole population. A further test can be made by inquiring if the sum of the figures found for the individual countries is consistent with that found on a similar basis for the aggregate of the countries. The rate of increase of the population of the aggregate of the countries, as pointed out in paragraph 18, fluctuated but little in the 40 years from 1871.

Condensing this table the following figures are obtained:—

Length of Residence.	MALES.						FEMALES.					
	15-34.			35-64.			15-34.			35-64.		
	Actual Num- ber of Deaths.	Deaths on basis of Standard Popu- lation.	Index.	Actual Num- ber of Deaths.	Deaths on basis of Standard Popu- lation.	Index.	Actual Num- ber of Deaths.	Deaths on basis of Standard Popu- lation.	Index.	Actual Num- ber of Deaths.	Deaths on basis of Standard Popu- lation.	Index.
Less than 5 years -	362	227	159	176	172	102	89	76	117	66	73	90
Between 5 & 10 years	67	45	149	71	66	108	18	17	106	39	28	139
„ 10 & 20 years	67	67	100	304	282	108	27	36	75	97	103	94
Over 20 years -	86	105	82	2,972	3,228	92	80	101	79	1,625	1,537	106
All immigrants -	582	444	131	3,523	3,748	94	214	230	93	1,827	1,741	105

The limiting rates of increase which have been assumed for the various populations are shown in Table XVI.

It may again be emphasised that these figures are put forward as rough approximations only. The most likely criticism appears to be that in the case of the Colonies the maximum rate of increase assumed is too low. Such an opinion, however, is probably affected by the great activity in immigration to the Colonies of

recent years, and the assumption that this is going to continue with unabated force. There is little evidence for this view, and the fact that migration occurs chiefly in times of prosperity suggests that long before the census of 1921 the figures of migration will have reached a lower level. The populations which will then be attained if the rates of increase shown in Table XVI. hold are given in Table XVII.

Applying the rates of increase referred to in Table XVI. for the aggregate of the countries, the figures for 1921 are:—

	Lower Limit.	Upper Limit.
	Thousands.	Thousands.
Males	31,616	32,898
Females	32,352	33,664
Total	63,968	66,562

The agreement between the figures is quite good for the lower limit, but not so good for the upper. But the assumption in this work which has the greatest probability is that the rate of increase of the population of the aggregate of the countries is not likely to exceed 14 per cent. of the mean population. The figures given by the upper limits for the individual groups are therefore, on the whole, extreme values, and better estimates for rough general purposes are probably given by the lower limits.

(26) On the assumption that the same rates of progression hold between 1921 and 1931, calculations have also been made of the various populations in the latter year. These are probably of very little value, as any attempt at estimating population for a date 20 years ahead has little scientific justification.

Table XVIII. indicates the populations in 1931 on the very improbable assumption that the rates of increase shown in Table XVI. will hold both between 1911 and 1921 and also 1921 and 1931. As before, two limiting values are given in each case, and these are necessarily wider apart than are the corresponding ones for 1921.

The result of assuming a larger rate of increase for females than for males in the case of Australia (justified by past experience) is to make the estimates of the number of males and females in the Commonwealth in 1931 more nearly equal.

Applying the rates of increase referred to in Table XVI. for the aggregate of the countries the figures for 1931 are:—

		<i>Lower Limit.</i>	<i>Upper Limit.</i>
		Thousands.	Thousands.
Males	-	34,936	37,826
Females	-	35,749	38,797
Total	-	70,685	76,533

Again the agreement is quite good for the lower limit, but the discrepancy between the values found at the maximum rate of increase is large. As stated before, no stress can be laid on any particular estimate of population 20 years ahead, and the figures in the tables merely show what numbers will be reached by increasing the census figures of 1911 at certain rates.

TABLE I.  
MIGRATION FROM AND EXTERNAL TRADE OF THE UNITED KINGDOM, 1876-1911.

Year.	Excess of Outward over Inward Passenger Movement (British Nationality) to				Exports of British and Irish Produce to					Total Imports (exclusive of Bullion and Specie) from					
	Australasia.	British North America.	United States.	All Countries.	Australasia.	British North America.	United States.	All British Possessions.	All Countries.	Australasia.	British North America.	United States.	All British Possessions.	All Countries.	
	In thousands.				In millions of pounds.					In millions of pounds.					
1876	29.6	2.7	.1	38.1	17.68	7.36	16.83	64.86	200.64	21.96	11.02	75.90	84.33	375.15	
7	25.5	2.0	.6	31.3	19.29	7.61	16.38	69.92	198.89	21.73	12.04	77.83	89.55	394.42	
8	32.3	4.4	20.7	58.0	19.57	6.44	14.55	66.24	192.85	20.86	9.53	89.15	77.94	368.77	
9	36.0	14.5	71.8	126.3	16.27	5.45	20.32	61.00	191.53	21.96	10.45	91.82	78.94	362.99	
1880	18.3	16.2	140.1	180.5	16.93	7.71	30.86	75.25	223.06	25.66	13.39	107.08	92.52	411.23	
1	16.8	18.2	146.3	190.3	21.38	8.41	29.80	79.36	234.02	26.98	11.30	103.21	91.54	397.02	
2	30.4	34.3	153.4	224.7	25.37	9.70	30.97	84.83	241.47	25.17	10.40	88.35	99.43	413.02	
3	64.4	37.2	144.9	246.3	24.22	9.16	27.37	83.48	239.80	25.94	12.28	99.24	98.68	426.89	
4	35.9	22.3	93.8	150.8	23.90	8.65	24.43	80.88	233.03	28.31	11.04	86.28	95.81	390.02	
5	31.4	10.5	80.1	122.2	25.17	7.21	21.99	77.93	213.04	23.33	10.35	86.48	84.40	370.97	
6	34.1	17.6	99.8	152.9	22.40	7.89	26.82	75.51	212.43	20.95	10.42	81.60	81.88	349.86	
7	23.9	25.2	143.2	196.0	19.77	8.11	29.55	75.14	221.41	23.34	10.56	83.05	83.80	362.23	
8	20.7	26.0	132.0	185.8	25.48	7.57	28.90	83.94	233.84	25.86	9.27	79.76	86.92	387.64	
9	17.9	19.6	97.4	150.7	22.88	8.14	30.29	83.28	248.94	26.80	12.19	95.46	97.27	427.64	
1890	11.0	13.0	77.7	108.6	23.01	7.23	32.07	87.37	263.53	29.35	12.44	97.28	96.16	420.69	
1	9.8	12.6	87.6	115.5	25.50	7.25	27.54	85.96	247.24	31.26	12.61	104.41	99.46	435.44	
2	5.3	13.9	87.3	112.3	19.29	7.43	26.55	74.75	227.22	30.54	14.57	108.19	97.77	423.79	
3	1.0	15.6	81.5	106.7	15.09	7.20	23.96	72.15	218.26	29.87	13.34	91.78	91.77	404.69	
4	1.8	7.2	20.5	37.7	16.04	6.31	18.80	72.85	216.01	31.86	12.91	89.61	94.00	408.34	
5	1.0	6.0	55.4	75.8	17.34	5.54	27.95	70.26	226.13	33.36	13.40	86.55	95.65	416.69	
6	1.0	5.7	39.7	60.2	21.89	5.76	20.42	84.19	240.15	29.40	16.44	106.35	93.29	441.81	
7	4.6	5.6	31.7	51.2	21.28	5.38	20.99	80.76	234.22	29.35	19.54	113.04	94.13	451.03	
8	3.6	7.8	29.8	49.4	21.11	6.15	14.72	83.50	233.36	28.85	20.75	126.06	99.76	470.54	
9	3.9	8.0	38.8	46.1	22.50	7.35	18.12	87.67	264.49	33.32	20.73	120.08	106.90	485.04	
1900	6.3	7.8	48.0	71.2	27.06	8.13	19.78	94.43	291.19	35.41	22.24	138.79	109.64	523.07	
1	6.6	7.1	45.9	72.0	26.95	8.14	18.39	104.87	280.02	34.81	20.39	141.02	105.68	521.99	
2	4.4	14.7	51.6	101.5	25.21	10.72	23.76	109.09	283.42	30.62	23.61	126.96	106.92	528.39	
3	3.7	45.9	65.4	147.0	22.51	11.50	22.61	111.15	290.80	30.51	27.28	122.11	113.67	542.60	
4	5.2	51.3	66.8	126.9	23.65	11.11	20.20	111.94	300.71	36.31	23.14	119.23	120.02	551.04	
5	7.3	62.5	61.0	139.4	23.42	12.34	23.92	113.44	329.82	40.36	26.20	115.57	127.87	565.02	
6	9.9	91.3	85.9	194.7	27.63	14.20	27.76	121.34	375.58	44.74	30.95	131.10	142.17	607.89	
7	13.9	117.5	99.9	235.1	32.80	17.55	30.92	137.34	426.04	51.62	28.36	133.68	157.14	645.81	
8	20.4	41.5	31.5	91.2	31.71	12.68	21.30	125.75	377.10	43.74	26.62	124.16	129.83	592.95	
9	25.2	52.4	56.4	139.7	31.35	16.30	29.76	125.78	378.18	50.38	27.67	118.27	146.91	624.70	
1910	32.7	115.7	73.6	233.7	36.30	20.61	31.45	145.45	430.38	59.52	26.97	119.97	170.64	678.26	
1911	65.8	134.8	49.7	261.8	40.69	20.31	27.52	156.73	454.12	56.95	26.14	124.44	171.45	680.16	

TABLE II.  
(CENSUS POPULATIONS UNDER AND OVER 15 SINCE 1861. (IN THOUSANDS.)

Census.	England and Wales.			Scotland.			Ireland.			Australia.			New Zealand.			Canada.			Total.		Total Population without Canada.	
	Under 15.	Over 15.	Total.	Under 15.	Over 15.	Total.	Under 15.	Over 15.	Total.	Under 15.	Over 15.	Total.	Under 15.	Over 15.	Total.	Under 15.	Over 15.	Total.	Under 15.	Over 15.		
MALES.																						
1861	3,588	6,188	9,776	500	950	1,450	968	1,869	2,837	210	459	669	—	—	61	—	—	—	—	—	14,793	
1871	4,108	6,951	11,059	625	978	1,603	973	1,667	2,640	353	556	909	51	99	150	736	1,137	1,872	6,845	11,388	16,361	
1881	4,728	7,912	12,640	692	1,107	1,799	922	1,611	2,533	412	773	1,215	105	165	270	840	1,349	2,189	7,729	12,917	18,457	
1891	5,072	8,988	14,060	726	1,217	1,943	778	1,541	2,319	593	1,111	1,704	126	207	333	883	1,577	2,460	8,178	14,641	20,359	
1901	5,265	10,464	15,729	756	1,418	2,174	687	1,513	2,200	669	1,309	1,978	131	275	406	974	1,778	2,752	8,482	16,757	22,487	
1911	5,531	11,915	17,446	773	1,536	2,308	660	1,532	2,192	713	1,600	2,313	160	372	532	—	—	3,821	—	—	24,791	
FEMALES																						
1861	3,562	6,728	10,290	493	1,119	1,612	934	2,028	2,962	207	275	482	—	—	38	—	—	—	—	—	15,384	
1871	4,094	7,559	11,653	607	1,150	1,757	942	1,831	2,773	346	406	752	50	56	106	709	1,106	1,815	6,748	12,108	17,041	
1881	4,740	8,595	13,335	674	1,262	1,936	892	1,750	2,642	434	601	1,035	103	117	220	810	1,326	2,136	7,653	13,651	19,168	
1891	5,100	9,842	14,942	706	1,377	2,083	751	1,635	2,386	580	890	1,470	124	170	294	855	1,518	2,373	8,116	15,432	21,175	
1901	5,280	11,519	16,799	739	1,559	2,298	666	1,593	2,259	655	1,141	1,796	127	240	367	949	1,071	2,020	8,416	17,723	23,519	
1911	5,520	13,105	18,625	764	1,688	2,452	640	1,558	2,198	694	1,448	2,142	155	322	477	—	—	3,384	—	—	25,894	



TABLE III.  
PROPORTION OF TOTAL POPULATION UNDER 15.

Year.	England and Wales.	Scotland.	Ireland.	Australia.	New Zealand.	Canada.	Total
MALES.							
1861 - - -	36.7	34.5	34.1	31.4	—	—	—
1871 - - -	37.0	39.1	36.9	38.8	34.0	39.3	37.6
1881 - - -	37.5	38.4	36.4	36.4	38.9	38.4	37.3
1891 - - -	36.0	37.4	33.5	34.8	37.8	35.9	35.7
1901 - - -	33.5	34.8	31.2	33.9	32.3	35.4	33.4
1911 - - -	31.8	33.4	30.1	30.8	30.1	—	—
FEMALES.							
1861 - - -	34.6	30.6	31.5	43.0	—	—	—
1871 - - -	35.2	34.5	34.0	46.0	47.2	39.1	35.8
1881 - - -	35.6	34.7	33.8	41.9	46.8	37.9	35.8
1891 - - -	34.2	33.9	31.4	39.4	42.2	36.7	34.3
1901 - - -	31.4	32.1	29.5	36.5	34.6	36.2	32.0
1911 - - -	29.6	31.2	29.1	32.4	32.5	—	—

TABLE IV.  
PERCENTAGE INCREASE OF POPULATION IN INTERCENSAL PERIODS.

Year.	England and Wales.		Scotland.		Ireland.		Australia.		New Zealand.		Canada.		Total.	
	Under 15.	Over 15.	Under 15.	Over 15.	Under 15.	Over 15.	Under 15.	Over 15.	Under 15.	Over 15.	Under 15.	Over 15.	Under 15.	Over 15.
MALES.														
1861-71 -	14.5	12.3	25.0	2.9	6.5	-10.8	68.1	21.1	—	—	—	—	—	—
1871-81 -	15.1	13.8	10.7	13.2	-5.2	-3.4	25.2	39.0	106.0	66.7	14.3	18.6	12.9	13.4
1881-91 -	7.3	13.6	4.9	9.9	-15.6	-4.4	34.2	43.7	20.0	25.5	5.1	16.9	5.8	13.4
1891-01 -	3.8	16.4	4.1	16.5	-11.7	-1.8	12.8	17.8	4.0	32.8	10.3	12.7	3.7	14.4
1901-11 -	5.1	13.8	2.2	8.0	-3.9	1.3	6.6	22.2	22.1	35.3	—	—	—	—
FEMALES.														
1861-71 -	14.9	12.3	23.1	2.8	0.9	-9.7	67.1	47.6	—	—	—	—	—	—
1871-81 -	15.8	13.7	11.0	9.7	-5.3	-4.4	25.4	48.0	106.0	109.0	14.2	19.8	13.4	12.8
1881-91 -	7.6	14.5	4.7	9.1	-15.8	-6.6	33.6	48.1	20.4	45.3	5.6	14.4	6.0	13.1
1891-01 -	3.5	17.0	4.7	13.2	-11.3	-2.6	12.9	28.2	2.4	41.2	11.0	10.1	3.7	14.8
1901-11 -	4.5	13.8	3.3	8.0	-3.9	-2.2	6.0	26.9	22.0	34.2	—	—	—	—

TABLE V.  
BIRTHS, DEATHS, AND NETT IMMIGRATION IN STATED COUNTRIES IN DECENNIAL PERIODS  
FROM 1861. (In Thousands.)

Period.	ENGLAND AND WALES.			SCOTLAND.			IRELAND.			AUSTRALIA.			NEW ZEALAND.			TOTAL.		
	Births.	Deaths.	Immigration.	Births.	Deaths.	Immigration.	Births.	Deaths.	Immigration.	Births.	Deaths.	Immigration.	Births.	Deaths.	Immigration.	Births.	Deaths.	Immigration.
MALES.																		
1861-71 -	3,827	2,460	- 85	575	351	- 71	—	—	—	289	135	80	37	11	75	—	—	—
1871-81 -	4,375	2,679	-115	633	362	- 75	720	485	-342	354	177	121	76	26	78	6,159	3,729	-329
1881-91 -	4,527	2,698	-115	612	369	-130	592	438	-368	485	241	214	97	31	11	6,113	3,780	-658
1891-1901	4,656	2,865	-115	656	389	- 35	512	412	-218	534	265	15	95	10	18	6,183	3,972	-366
1901-1911	4,736	2,706	-313	667	382	-152	525	381	-152	551	262	31	122	51	57	6,601	3,782	-529
FEMALES.																		
1861-71 -	3,673	2,335	- 25	516	355	- 46	—	—	—	275	91	87	36	9	39	—	—	—
1871-81 -	4,214	2,499	- 31	599	382	- 38	682	482	-331	339	125	68	72	18	58	5,906	3,506	-277
1881-91 -	4,361	2,546	-202	610	375	- 88	559	445	-370	162	169	139	93	25	9	6,087	3,560	-512
1891-1901	4,497	2,710	- 62	625	393	- 17	513	424	-217	508	189	10	91	29	8	6,234	3,744	-278
1901-1911	4,562	2,512	-194	610	383	-101	498	386	-172	523	193	10	116	36	30	6,339	3,510	-431

TABLE VI.  
BIRTH-, DEATH-, IMMIGRATION-, AND TOTAL INCREASE RATES IN DECENNIAL PERIODS (BASED UPON THE MEAN POPULATION IN THOSE PERIODS PER 100.)

Period.	ENGLAND AND WALES.				SCOTLAND.				IRELAND.				AUSTRALIA.				NEW ZEALAND.				TOTAL WITHOUT CANADA.				TOTAL WITH CANADA.				
	Birth.	Death.	Immig.	Total.	Birth.	Death.	Immig.	Total.	Birth.	Death.	Immig.	Total.	Birth.	Death.	Immig.	Total.	Birth.	Death.	Immig.	Total.	Birth.	Death.	Immig.	Total.	Birth.	Death.	Immig.	Total.	
MALES.																													
1861-70	36.8	23.7	-0.8	12.3	37.6	22.9	-4.6	10.1	—	—	—	—	7.2	36.7	17.0	10.1	29.8	35.3	13.3	70.3	92.3	—	—	—	10.1	—	—	—	—
1871-80	37.0	22.7	-1.0	13.3	37.2	21.3	-4.4	11.5	27.8	18.7	-13.2	—	4.1	33.4	16.7	11.7	28.4	36.1	12.5	37.3	60.9	35.4	21.4	-1.9	12.1	15.6	12.4	15.6	12.4
1881-90	34.0	20.3	-3.1	10.6	34.3	19.7	-7.0	7.6	24.4	18.0	-15.1	—	8.7	33.2	16.5	16.7	33.4	32.2	11.3	3.6	24.5	32.7	19.5	-3.4	9.8	11.7	10.0	11.7	10.0
1891-1900	31.3	19.2	-0.8	11.3	31.9	18.9	-1.7	11.3	24.0	18.2	-11.0	—	5.2	29.0	14.4	0.8	15.4	25.8	10.8	4.9	19.9	30.3	18.6	-1.7	10.0	11.2	10.1	11.2	10.1
1901-10	25.5	16.3	-1.9	10.3	26.8	17.0	-6.8	6.0	23.9	17.3	-6.9	—	0.3	25.6	12.2	1.4	14.8	26.0	10.8	12.1	27.3	28.0	16.0	-2.2	9.8	32.5	12.5	32.5	12.5
FEMALES.																													
1861-70	33.4	21.2	-1.2	12.4	32.5	21.1	-2.7	8.7	—	—	—	—	—	6.6	44.6	15.2	14.2	43.6	51.0	12.8	54.6	91.8	—	—	—	—	—	—	—
1871-80	33.7	20.0	-0.3	13.4	32.4	20.6	-2.1	9.0	25.2	17.8	-12.2	—	4.8	38.0	14.0	7.6	31.6	44.4	11.2	35.8	69.0	32.5	19.3	-1.5	11.7	16.2	12.2	16.2	12.2
1881-90	30.9	18.1	-1.4	11.4	30.3	18.7	-4.4	7.2	22.3	17.7	-14.7	—	10.1	37.0	13.5	11.1	34.6	34.9	9.2	3.5	29.2	30.1	17.6	-2.5	10.0	10.5	10.0	10.5	10.0
1891-1900	28.3	17.0	-0.4	10.9	28.5	17.9	-0.8	9.8	22.1	18.3	-9.3	—	5.5	31.2	11.6	0.6	20.2	27.5	8.7	2.3	21.1	28.0	16.8	-1.2	10.0	9.9	10.4	9.9	10.4
1901-10	25.8	14.3	-1.1	10.4	26.9	16.1	-4.4	6.4	22.3	17.3	-7.7	—	2.7	26.6	9.8	0.5	17.3	27.4	8.6	7.0	28.8	25.7	14.3	-1.7	9.7	25.5	11.4	25.5	11.4

TABLE VII.  
LEGITIMATE BIRTHS PER 1,000 MARRIED WOMEN, AGED 15-45.

Country.	1861.	1871.	1881.	1891.	1901.	1911.
England and Wales	281.2	289.4	285.6	269.9	231.9	197.0
Scotland	317.8	317.4	313.1	300.4	272.4	232.0
Ireland	—	308.9	283.0	293.5	288.3	295.0
Australia	—	—	—	276.0	237.7	234.3
New South Wales	340.8	331.5	336.3	288.7	235.3	237.2
Victoria	302.2	298.2	298.4	297.7	228.6	225.0
Queensland	—	—	316.2	327.7	254.0	246.9
S. Australia	—	—	—	—	235.9	237.5
W. Australia	—	—	—	—	243.9	224.2
Tasmania	—	—	—	—	260.0	246.4
New Zealand	—	—	312.2	275.7	246.1	211.8

TABLE VIII.  
NUMBER OF BIRTHS PER MARRIAGE IN PREVIOUS YEAR.

Country.	1861.	1871.	1881.	1891.	1901.	1906.	1909.	1910.	1911.
England and Wales	4.1	4.4	4.6	4.1	3.6	3.6	3.5	3.4	3.3
Scotland	5.0	4.9	5.2	4.6	4.1	4.2	4.1	4.1	3.7
Ireland	—	5.3	6.2	5.1	4.7	4.5	4.5	4.5	4.6
Australia	5.2	5.5	5.4	4.7	3.8	3.7	3.5	3.5	3.3
New Zealand	5.0	5.7	5.9	4.8	3.5	3.4	3.2	3.2	3.2



TABLE X.  
EXCESS OF UNMARRIED FEMALES OVER UNMARRIED MALES IN AGE GROUPS. (In Thousands.)  
(— Indicates that Unmarried Males are in excess.)

Age Group.	ENGLAND AND WALES.		SCOTLAND.		IRELAND.		AUSTRALIA.		NEW ZEALAND.		TOTAL.		ENGLAND AND WALES, 1911.	
	1901.	1911.	1901.	1911.	1901.	1911.	1901.	1911.	1901.	1911.	1901.	1911.	Urban Districts.	Rural Districts.
15-20	10,1	9,9	— 7,8	— 7,0	1,2	— 8,0	— 6,3	— 12,8	— ,8	— 2,0	— 3,6	— 19,9	65,7	— 55,9
25	— 20,1	— 21,6	— 13,4	— 8,2	— 9,9	— 22,0	— 30,3	— 47,3	— 6,2	— 12,3	— 79,9	— 111,4	30,0	— 51,6
30	— 48,9	— 12,0	— 5,9	— 3,6	— 42,3	— 44,6	— 37,3	— 40,9	— 7,8	— 15,6	— 24,4	— 117,0	12,9	— 24,9
35	— 30,8	— 18,8	— 4,1	— 3,2	— 3,2	— 4,6	— 34,8	— 22,7	— 4,9	— 8,8	— 2,3	— 117,0	36,3	— 5,5
40	— 76,5	— 49,8	— 6,3	— 3,6	— 12,7	— 31,2	— 28,8	— 15,6	— 3,5	— 4,4	— 7,1	— 37,6	47,5	2,2
45	— 48,6	— 98,4	— 5,5	— 5,0	— 8,6	— 31,2	— 21,9	— 15,5	— 3,1	— 2,7	— 18,3	— 37,6	44,6	4,0
50	— 51,1	— 46,9	— 6,0	— 7,3	— 1,7	— 5,2	— 14,5	— 14,7	— 2,8	— 2,1	— 4,5	— 62,1	41,8	5,1
55	— 37,3	— 84,2	— 5,6	— 7,0	— 14,3	— 14,3	— 11,0	— 12,0	— 2,1	— 2,2	— 31,0	— 62,1	33,5	3,7
15-35	38,9	7,1	— 25,3	— 18,4	— 51,1	— 74,6	— 108,7	— 123,7	— 19,7	— 38,7	— 165,8	— 248,3	144,9	— 137,8
15-55	166,5	189,7	— 1,9	4,5	— 62,1	— 111,0	— 184,9	— 181,5	— 31,2	— 50,3	— 113,5	— 148,6	312,3	— 122,8

TABLE XI.

*Numbers of Unmarried Males and Females between certain Age Limits in London Boroughs (1911), and certain indices of Social Status.*

Borough.	Professional Men per 1,000 Occupied Males.	Female Domestic Servants per 100 Families.	15-35.			35-55.		
			Unmarried Men.	Unmarried Women.	Surplus of Women.	Unmarried Men.	Unmarried Women.	Surplus of Women.
			In Thousands.			In Thousands.		
Hampstead -	82.9	79.9	8.6	18.9	10.3	1.6	5.6	4.0
Kensington -	67.0	74.9	16.1	34.7	18.6	3.0	11.5	8.5
Holborn -	58.0	20.7	7.0	7.2	0.2	1.9	1.9	0.0
Wandsworth -	56.3	34.4	30.7	11.3	10.6	4.5	9.8	5.3
Paddington -	53.3	46.7	15.1	23.9	8.8	2.5	7.0	4.5
Lewisham -	52.2	35.8	15.2	20.9	5.7	1.9	4.0	2.1
St. Marylebone.	51.2	46.0	13.3	22.2	8.9	3.0	6.6	3.6
Stoke Newington.	46.5	27.6	5.6	7.4	1.8	0.7	1.8	1.1
Westminster -	43.3	53.4	24.6	29.8	5.2	6.2	8.7	2.5
Chelsea -	38.9	25.4	6.8	11.4	4.6	1.4	3.7	2.3
Hammer-smith.	37.1	18.7	11.3	14.0	-0.3	2.4	3.0	0.6
Lambeth -	35.6	17.6	33.7	34.1	0.4	5.4	7.0	1.6
Fulham -	34.7	17.4	15.6	16.1	0.8	1.8	3.0	1.2
Camberwell -	33.2	15.0	28.5	29.8	1.3	3.8	5.5	1.7
Hackney -	33.2	17.8	21.5	29.1	4.9	3.2	5.6	2.4
Battersea -	32.6	12.5	18.2	17.6	-0.6	2.2	3.1	0.9
St. Pancras -	32.1	15.9	27.1	24.9	-2.2	5.2	5.2	0.0
Islington -	30.4	15.3	36.6	37.6	1.0	5.6	8.0	2.4
Deptford and Greenwich.	26.1	19.2	11.9	11.8	-0.1	1.5	1.9	0.4
Woolwich -	14.6	14.1	14.9	11.5	-3.4	1.8	1.4	-0.4
Southwark -	14.3	7.3	21.5	19.0	-2.5	4.1	2.3	-1.8
Finsbury -	13.6	7.9	10.0	9.3	-0.7	1.5	1.3	-0.2
Stepney -	12.0	8.6	32.1	29.1	-3.0	5.5	2.6	-2.9
Poplar -	10.3	8.0	17.6	15.9	-1.7	2.1	1.5	-0.9
Bernardsey -	9.9	6.4	14.1	12.5	-1.6	2.1	1.2	-0.9
Bethnal Green.	6.8	5.6	13.9	13.7	-0.2	1.6	1.4	-0.2
Shoreditch -	6.4	5.5	12.2	11.4	-0.8	1.7	1.1	-0.6

TABLE XII.

*Numbers of Unmarried Males and Females between 15 and 35 in the aggregate of County Boroughs, other Urban Districts, and in Rural Districts in Counties and divisions of Counties. (In thousands.) 1911.*

County.	Aggregate of County Boroughs.		Remaining Urban Districts.		Rural Districts.	
	Males.	Females.	Males.	Females.	Males.	Females.
Bedford -	—	—	12.7	15.0	8.5	6.9
Berks -	8.3	8.6	6.6	7.1	15.9	14.3
Bucks -	—	—	8.8	8.7	15.3	13.8
Cambs -	—	—	5.5	7.2	8.6	6.7
Cheshire -	30.4	32.0	52.9	60.6	22.6	22.3
Cornwall -	—	—	15.4	18.1	20.0	19.3
Cumberland -	—	—	18.6	19.0	12.6	11.8
Derby -	12.8	13.8	31.7	28.7	32.4	23.9
Devon -	32.3	25.4	24.4	30.9	26.8	24.1
Dorset -	—	—	17.2	14.0	12.0	10.2
Durham -	46.9	45.6	60.8	49.5	56.2	34.8
Isle of Ely -	—	—	3.9	3.7	3.9	2.7
Essex -	31.0	28.3	84.0	87.3	31.1	23.0
Gloucester -	41.4	53.0	10.1	14.4	24.9	22.9
Hants -	52.4	49.2	36.7	18.9	31.9	22.3
Hereford -	—	—	4.2	5.1	7.9	7.6
Herts -	—	—	20.2	23.7	13.8	13.2
Hunts -	—	—	2.5	2.4	3.6	2.7
Kent -	3.1	2.7	83.2	82.5	35.5	29.7
Lancs -	333.7	352.8	166.5	178.4	29.0	28.4
Leicester -	22.2	28.9	10.6	11.3	16.9	15.7
Lincoln -	15.9	13.4	19.0	18.4	29.1	23.2
London -	504.3	569.0	—	—	—	—
Middlesex -	—	—	107.4	129.3	1.4	5.6
Monmouth -	10.2	9.1	33.9	20.8	5.5	4.8
Norfolk -	17.5	21.8	6.1	7.3	29.2	23.0
Northants -	10.0	11.5	14.1	14.7	14.8	12.6
Northumberland -	37.7	36.7	28.5	23.4	15.1	14.6
Notts -	25.3	32.5	22.4	21.0	14.8	12.6
Oxford -	5.5	8.0	4.7	5.7	11.7	9.5
Rutland -	—	—	4	4	2.2	1.7
Shropshire -	—	—	12.5	11.9	16.2	13.7
Somerset -	4.4	7.7	16.2	21.1	27.0	26.5
Stafford -	65.8	63.7	58.8	52.2	25.3	20.4
Suffolk, East -	7.9	8.4	8.7	9.6	15.0	10.3
" West -	—	—	5.0	5.2	8.5	6.3
Surrey -	15.9	20.5	47.9	60.9	22.4	27.2
Sussex, East -	23.0	35.1	10.6	17.5	14.0	13.7
" West -	—	—	7.8	11.0	10.8	9.1
Warwick -	68.8	69.5	25.8	29.2	19.0	15.8
Westmoreland -	—	—	2.8	3.8	4.4	4.7
Isle of Wight -	—	—	5.4	7.4	4.2	3.1
Wiltshire -	—	—	14.0	14.1	20.8	14.0
Worcestershire -	10.2	11.1	23.7	29.1	20.2	20.1
Yorks, E. Riding -	29.7	28.3	5.7	7.7	12.8	9.6
" N. " -	12.1	9.7	19.5	18.7	17.2	15.1
" W. " -	153.6	166.7	131.7	128.7	45.2	34.7
Glamorgan -	46.8	39.7	69.7	43.4	25.1	19.1
Remainder of S. Wales.	—	—	17.4	16.9	31.3	28.5
N. Wales -	—	—	22.0	25.5	37.9	30.7

TABLE XIII.

BIRTH RATE OF CERTAIN POPULATIONS IN AUSTRALIA (1911) ACCORDING TO BIRTHPLACE.

Birthplace.	No. of Women at Census 1911 between Ages		Total No. of Births (1911) according to Birthplace of Mother.	No. of Births per 100 Women, 15-45.		No. of Men at Census 1911 between Ages		Total No. of Births (1911) according to Birthplace of Father.	No. of Births per 100 Men, 20-45.	
	15-45.	20-40.			No. of Births per 100 Women, 20-40.	20-45.	20-55.			No. of Births per 100 Men, 20-55.
England - - -	50,700	37,200	6,136	12.1	16.5	77,500	119,500	9,660	12.5	8.1
Wales - - -	1,700	1,300	220	13.1	17.5	2,800	4,500	300	10.9	6.6
Scotland - - -	12,300	9,100	1,552	12.6	17.1	19,500	31,500	2,311	11.8	7.3
Ireland - - -	17,100	10,700	1,431	8.4	13.4	18,000	35,300	2,168	12.1	6.2
New South Wales -	328,700	220,600	41,895	12.7	19.0	250,100	294,300	35,859	14.4	12.2
Victoria - - -	322,000	211,900	34,296	10.7	16.2	245,900	306,500	31,697	12.9	10.3
Queensland - - -	106,400	69,800	12,927	12.2	18.5	76,000	81,800	9,188	12.5	11.6
South Australia -	108,400	74,400	13,034	12.0	17.5	86,200	104,500	12,316	14.3	11.8
Western Australia -	14,100	8,500	1,882	13.4	22.1	10,000	11,900	1,323	13.2	11.1
Tasmania - - -	46,000	30,600	5,656	12.3	18.5	34,700	44,500	5,123	14.8	11.5
New Zealand - - -	11,000	8,800	1,283	11.7	14.7	11,100	13,300	1,267	11.1	9.6
Germany - - -	3,200	2,300	551	17.1	24.3	7,400	11,700	1,062	14.4	9.1
Italy - - -	800	600	179	23.3	30.2	3,500	4,300	290	8.2	6.8
United States - -	1,200	900	92	7.6	10.2	2,200	3,000	186	8.4	6.1

TABLE XIV.

MORTALITY OF THE POPULATION IN AUSTRALIA IN 1911 ACCORDING TO BIRTHPLACE.

Birthplace.	No. of Deaths of such Men which would have occurred if the Death		No. of Deaths of such Men which would have occurred if the Death		No. of Deaths of such Women which would have occurred if the Death		No. of Deaths of such Women which would have occurred if the Death	
	No. of Deaths 15-34.	Rate at each quinquennial age-period for the whole of the corresponding male population of the Commonwealth applied.	No. of Deaths 35-64.	Rate at each quinquennial age-period for the whole of the corresponding male population of the Commonwealth applied.	No. of Deaths 15-34.	Rate at each quinquennial age-period for the whole of the corresponding female population of the Commonwealth applied.	No. of Deaths 35-64.	Rate at each quinquennial age-period for the whole of the corresponding female population of the Commonwealth applied.
England - - -	234	207	1,752	1,775	115	117	939	887
Wales - - -	8	7	64	68	4	4	31	32
Scotland - - -	80	54	569	479	28	29	229	231
Ireland - - -	70	36	781	651	32	28	516	447
New South Wales -	876	969	1,394	1,602	864	922	1,107	1,163
Victoria - - -	794	873	1,668	1,714	887	848	1,315	1,268
Queensland - - -	312	320	242	226	317	306	167	172
South Australia -	286	318	502	614	330	302	417	449
Western Australia -	33	41	58	64	33	38	36	47
Tasmania - - -	126	127	289	336	151	125	236	241
New Zealand - - -	10	35	70	63	29	31	43	39
Germany - - -	10	9	185	193	4	7	63	78
Italy - - -	21	11	26	29	2	2	3	4
United States - -	4	6	28	34	2	3	7	12



TABLE XV  
MORTALITY OF THE POPULATION IN AUSTRALIA IN 1911 ACCORDING TO LENGTH OF RESIDENCE.

Length of residence in Australia.	Men.		Men.		Women.		Women.	
	No. of Deaths of Men, 15-34.	No. of Deaths of such Men which would have occurred if the Death rate at each quinquennial age-period for the whole of the corresponding male population of the Commonwealth applied.	No. of Deaths of Men, 35-64.	No. of Deaths of such Men which would have occurred if the Death rate at each quinquennial age-period for the whole of the corresponding male population of the Commonwealth applied.	No. of Deaths of Women, 15-34.	No. of Deaths of such Women which would have occurred if the Death rate at each quinquennial age-period for the whole of the corresponding female population of the Commonwealth applied.	No. of Deaths of Women, 35-64.	No. of Deaths of such Women which would have occurred if the Death rate at each quinquennial age-period for the whole of the corresponding female population of the Commonwealth applied.
Under 1 year	162	105	73	75	34	32	27	29
Between 1 and 2 years	67	47	24	33	9	18	13	16
.. 2 and 3	68	35	34	27	17	13	13	12
.. 3 and 4	43	25	26	22	21	9	5	9
.. 4 and 5	22	15	19	16	8	5	8	7
.. 5 and 10	67	45	71	66	18	17	39	28
.. 10 and 15	37	43	142	116	18	19	44	39
.. 15 and 20	30	23	162	167	9	17	53	64
.. 20 and 25	41	48	457	545	35	46	206	222
.. 25 and 30	38	47	699	816	35	45	327	326
.. 30 and 35	7	11	625	607	10	10	255	214
.. 35 and 40	—	—	359	351	—	—	171	141
.. 40 and 45	—	—	256	227	—	—	188	131
.. 45 and 50	—	—	189	205	—	—	139	150
.. 50 and 55	—	—	171	190	—	—	143	141
.. 55 and 60	—	—	168	244	—	—	160	179
.. 60 and 65	—	—	48	44	—	—	36	33

TABLE XVI.  
LIMITING RATES OF INCREASE (PERCENTAGE OF THE MEAN INTERCENSAL POPULATIONS) ASSUMED FOR THE ESTIMATION OF THE POPULATION OF THE VARIOUS COUNTRIES IN 1921.

		ENGLAND AND WALES.		SCOTLAND.		IRELAND		AUSTRALIA.		NEW ZEALAND.		CANADA.		AGGREGATE OF COUNTRIES.	
		Males.	F'males	Males.	F'males	Males.	F'males	Males.	F'males	Males.	F'males	Males.	F'males	Males.	F'males
Under 15	Lower	4	4	2	2	—5	—5	5	5	10	10	—	—	—	—
	Upper	8	8	5	5	5	5	15	15	25	25	—	—	—	—
Over 15	Lower	9	9	5	5	0	—5	25	30	30	30	—	—	—	—
	Upper	12	12	8	8	5	0	35	40	40	40	—	—	—	—
Total	Lower	9	9	4	4	—2	—5	15	18	20	20	20	20	10	10
	Upper	11	11	7	7	2	0	25	28	35	35	35	35	14	14

TABLE XVII.  
POPULATIONS IN 1921 ON THE ASSUMPTION THAT THE RATES OF INCREASE SHOWN IN  
TABLE XVI. HOLD. (Thousands.)

			Lower Limit			Upper Limit.			By using Rates of Increase of Total Popu- lation.
			Under 15	Over 15.	Total.	Under 15.	Over 15.	Total.	Lower Limit, Upper Limit.
ENGLAND AND WALES.									
Males	-	-	5,757	13,035	18,792	5,991	13,431	19,422	19,086
Females	-	-	5,745	14,337	20,082	5,979	14,772	20,771	20,376
Total	-	-	11,502	27,372	38,874	11,970	28,203	40,193	39,462
SCOTLAND.									
Males	-	-	789	1,615	2,404	813	1,664	2,477	2,402
Females	-	-	779	1,774	2,553	803	1,828	2,631	2,552
Total	-	-	1,568	3,389	4,957	1,616	3,492	5,108	5,105
IRELAND.									
Males	-	-	628	1,532	2,160	694	1,610	2,304	2,149
Females	-	-	609	1,482	2,091	673	1,558	2,231	2,091
Total	-	-	1,237	3,014	4,251	1,367	3,168	4,535	4,240
AUSTRALIA.									
Males	-	-	750	2,050	2,800	828	2,258	3,086	2,686
Females	-	-	730	1,948	2,678	806	2,143	2,949	2,562
Total	-	-	1,480	3,998	5,478	2,634	4,401	6,035	5,248
NEW ZEALAND.									
Males	-	-	177	500	677	205	551	756	649
Females	-	-	171	433	604	199	477	676	582
Total	-	-	348	933	1,281	404	1,028	1,432	1,231
CANADA.									
Males	-	-	—	—	4,662	—	—	5,392	4,662
Females	-	-	—	—	4,128	—	—	4,776	4,128
Total	-	-	—	—	8,790	—	—	10,168	8,790
AGGREGATE OF COUNTRIES.									
Males	-	-	—	—	31,495	—	—	33,437	31,634
Females	-	-	—	—	32,140	—	—	34,034	32,291
Total	-	-	—	—	63,635	—	—	67,471	63,925

TABLE XVIII.

POPULATIONS IN 1931 ON THE ASSUMPTION THAT THE RATES OF INCREASE SHOWN IN  
TABLE XVI. HOLD FOR TWO INTERCENSAL PERIODS. (Thousands.)

	Lower Limit.			Upper Limit.		
	Under 15.	Over 15.	Total.	Under 15.	Over 15.	Total.
ENGLAND AND WALES.						
Males - -	5,992	14,260	20,252	6,489	15,139	21,628
Females - -	5,979	15,685	21,664	6,476	16,651	23,127
Total - -	11,971	29,945	41,916	12,965	31,790	44,755
SCOTLAND.						
Males - -	805	1,697	2,502	855	1,802	2,657
Females - -	795	1,865	2,660	844	1,981	2,825
Total - -	1,600	3,562	5,162	1,699	3,783	5,482
IRELAND.						
Males - -	597	1,532	2,129	730	1,692	2,422
Females - -	579	1,410	1,989	707	1,568	2,265
Total - -	1,176	2,942	4,118	1,437	3,250	4,687
AUSTRALIA.						
Males - -	788	2,626	3,414	961	3,186	4,147
Females - -	767	2,619	3,386	936	3,172	4,108
Total - -	1,555	5,245	6,800	1,897	6,358	8,255
NEW ZEALAND.						
Males - -	196	673	869	263	815	1,078
Females - -	189	582	771	255	706	961
Total - -	385	1,255	1,640	518	1,521	2,039
CANADA.						
Males - -	—	—	5,688	—	—	7,609
Females - -	—	—	5,036	—	—	6,740
Total - -	—	—	10,724	—	—	14,349
AGGREGATE OF THE COUNTRIES.						
Males - -	—	—	34,854	—	—	39,541
Females - -	—	—	35,506	—	—	40,026
Total - -	—	—	70,360	—	—	79,567

## II.—OVERSEA COMMUNICATIONS.

### A. Steamship, Post, and Telegraph.

#### (i) Mails.

(a) **Memorandum prepared by the British Imperial Council of Commerce, at the request of the Dominions Royal Commission, supplementing evidence tendered by the Chairman of the former body on the subject of**

#### The All-Red Mail Route.

On the occasion of the examination of the Chairman of the British Imperial Council of Commerce by the Dominions Royal Commission on October 30th, 1912, it was suggested that a concrete scheme for an All-Red Mail Route might be prepared,\* not necessarily as being that recommended by the Council as superior to any other, but with a view principally to affording a basis for discussion. The British Imperial Council of Commerce is a composite body having members in the most remote portions of the Empire, and, clearly, the triennial congress, which it organises, cannot do more than express in general terms the view of the representatives of British commerce. To discuss in detail any concrete proposals in regard to the above-mentioned subject, would indeed, so far as the Congress is concerned, be a work of supererogation, even if such a course were possible, and, accordingly, the proposition referred to below (the details of which are readily obtainable from the promoters) are only cited with the object of basing certain observations and deductions thereon. Obviously the members of the Council engaged in various branches of commerce and industry are not in a position as a body to give a technical opinion in favour of one scheme or another, a matter which should be left to experts.

There is no doubt that the Commercial Congress of the Empire is influenced to some extent by sentiment; but it is also true that that sentiment is chiefly governed by the conviction that any proposals which will serve to weld together the various portions of the Empire are sound commercially as well as politically. Consequently the resolution adopted by the Congress in favour of an "All-Red" mail route may be taken as expressing, on behalf of commercial men as a whole, a sentimental or patriotic conviction backed by commercial common sense, with due appreciation of the situation which has arisen in regard to the supply of food in time of war.

The proposal to establish an All-British fast service connecting the United Kingdom (via Canada) with Australia and New Zealand, and even Hong Kong, is by no means new. It was indeed originally propounded almost a century ago, though principally from a definite standpoint, *i.e.*, the advantage to be derived in time of war, which is only one of many aspects now considered by those favouring the modern development of the idea.

The existence of a fast mail and freight service to and from all parts of the Empire by British steamers and via British territory only, suggests very obvious advantages from many points of view, and, indeed, since the Empire Commercial Congress first discussed the matter, the principle involved has been laid before, and approved by, successive Imperial Conferences. That the time has come when the various Governments concerned should assist in promoting a scheme having that end in view is very generally accepted.

The principal link in the Imperial chain which remains to be forged is the first stage, namely, the connection between the United Kingdom and Canada.

Broadly speaking, two proposals have been put forward, the first suggesting a fast subsidised service direct

from Liverpool or Bristol to Halifax (N.S.) or St. John (N.B.) and perhaps in open weather, Montreal; while the second looks to the utilisation of one of the natural harbours on the west coast of Ireland. The latter has advantages in the saving of time not only by the fact of more of the journey being accomplished by rail, but because the sea journey will also be more than correspondingly reduced. The Irish Channel might be traversed by ferry, and in this connection it may be useful to quote the following observations contained in a memorandum on the subject of ferries by the late Sir William White, H.M. Director of Naval Construction: he wrote, "The length, bulk, and weight of a modern railway train naturally produce an impression that both the operation of placing it on board a ship and its presence on the deck when the vessel is in a seaway must involve serious risk, and must prejudicially affect the stability and behaviour of a Ferry Steamer. This popular view has never found favour with naval architects and civil engineers. . . . The feasibility and safety of railway-ferry steamers is no longer a matter for debate; the question has been settled by actual experience in various parts of the world." The necessity for this preliminary crossing has been held by some to be an insuperable objection to the route. This refers principally to first-class passengers, and it seems hardly likely that these, in order to avoid a sea passage of three hours (in the case of Scotland, 1 hour) would add 20 hours to the Atlantic crossing. It may, of course, be said that the west coast of Ireland route would require, at the outset, the construction of a port—the docks, &c., necessary for ocean liners and of 100 miles of railway, at relatively heavy cost, for which Parliamentary powers have already been obtained, but for the realisation of the fundamental principle of an All-Red Mail Route, it is not essential that the west of Ireland port and Halifax should be the *terminal* ports of the steamers; they need only be ports of call, with, for example, Liverpool and Boston as the extremities of the voyage.

For the moment, it is proposed to discuss the advantages which such a route, if established, would possess over the New York service.

The promoters of the Blacksod Bay scheme have taken many practical steps towards its realisation. Particulars have been published in pamphlet form, but the main practical argument in its favour (apart from sentimental considerations and the question of food supply in time of war) may be recapitulated here: they apply, generally speaking, to any west coast of Ireland point of departure, such, for instance, as Galway, which is also favoured in some quarters:—

- (1) The distance between Blacksod Bay and Halifax is about 2,100 miles, which compares with 3,150 miles between Liverpool and New York, and the ocean passage would thus be reduced from  $5\frac{1}{2}$  to  $3\frac{1}{2}$  days, given steamers of 25 knots.
- (2) The actual time between London and New York would be reduced from  $5\frac{3}{4}$  days to less than 5 days, whilst the time between London and Montreal would be reduced from  $6\frac{1}{2}$  days to  $4\frac{1}{4}$  days.

- (3) Passenger traffic from Northern Europe *via* the East coast ports in the United Kingdom would probably be attracted, as such an itinerary, properly organised, would mean a saving of still further time.
- (4) The delays owing to tide and fog experienced at Liverpool would be obviated entirely, Blacksod Bay being enterable at any time and in any weather.
- (5) The shorter ocean passage would require less coal and consequently leave more room on the vessels for other purposes.
- (6) The saving in time detailed above would also benefit the mails, and the new route might become the principal mail service between United Kingdom and North America, and, possibly, Australia and New Zealand.

These particulars have been given, not, as has already been pointed out, with a view to advocating the claims of the Blacksod Bay or any other suggested route, but for the purpose of emphasizing the obvious advantages which attach to a direct route as such and providing some definite data upon which practical consideration of the matter as a sound commercial proposal can be based. It may be stated that practically all Canadian and New Zealand statesmen of influence have already expressed themselves in favour of some such scheme. The resolutions of successive Empire congresses demonstrate that in commercial opinion Canada has reached that stage of development—of commercial importance—which would justify the step advocated, both Imperially speaking and as a matter of business.

Before passing to some general observations upon the subject, it may be well to consider a special feature, which applies in its greatest degree to the Blacksod Bay route, *i.e.*, the advantages of the direct service in time of war.

The bulk of naval opinion, and of that of the majority of the experts, at the present day, appears to favour the view that in time of war the policy of naval combatants would be one of concentration—at any rate until such time as a decisive engagement had taken place. In other words, no navy would be inclined, unless in a case of very great superiority, to weaken itself by detaching units for the purpose of preying upon the enemy's commerce. And history shows quite clearly that the destruction of commerce, in this way, has never become so widespread as to exercise a serious crippling effect, directly or indirectly, upon a combatant.

On the other hand, it is impossible to find an instance in history of a nation being so remarkably dependent upon overseas imports of food as is the case with the United Kingdom at present; and accordingly the possibility of the interruption to any appreciable extent of trade routes must be considered as a factor in case of war, not only as affecting the efficiency of the fleet, but as an additional disturbing influence upon markets which would already be in a state of perturbation. From the standpoint of the probability of maintaining food supplies uninterrupted in the

time of war, the West Coast of Ireland—Canada route is undoubtedly attractive, more especially when it is remembered that Canada already provides us with a large proportion of our wheat (by common consent the article of first necessity), a proportion which is increasing year by year. The practical point is that the route would be "more remote from a probable enemy's base than other routes leading to the "British Isles": practically, indeed, out of range of enemy cruisers, and, at the same time, the distance from our own naval base would be but little increased; in other words, the proposed route is very advantageous strategically, for protecting and ensuring regular imports of food and raw material. For whilst nothing could prevent rises, in time of war, in the cost of the principal articles of food, owing to comparative shortage and other causes, yet the fact of communication with Canada, and through Canada with Australia and New Zealand, being practically unaffected, would exercise a steadying influence upon home markets, the importance of which can hardly be over-estimated.

Without going in detail into the financial aspects of the question, a course which would be quite outside the functions of the Council, attention may perhaps be drawn to the obvious inference that the reduction of the ocean passage by practically one-third entails advantages in the lesser number of vessels required, together with all which that implies, from the decreased consumption of coal, of wages, depreciation, food, &c., downwards. Halifax is already the eastern terminus of the trans-Canadian railways.

It is impossible to over-estimate the advantages which may follow the transference of the express mail service to Canada. The considerable decrease in the time of transit of the mails even to New York itself had already been touched upon. The diversion of the stream of emigration more and more to British Colonies would be a natural corollary. The development of trade and all that depends upon maritime relations of such a nature would necessarily take place, this time to the advantage of other portions of the Empire and not of the foreigner. Indeed, a great forward movement would be made towards the desire of the Imperialist to see the Empire largely self-supporting.

Quite recently, the Canadian Government contracted with Canadian steamship lines for a tri-weekly direct service in summer, and bi-weekly in winter, and no correspondence from the Dominion is apparently despatched *via* New York except that which is specially inscribed with an instruction to that effect. The effect of this has been to decrease the number of mails from Canada, but not, on an average, to increase the time of transit. If this result can be obtained under existing conditions, it is clear that the full participation of the Home Government in the endeavour to transfer the principal mail route to Canada, would bring about results which would be of inestimable benefit to the Empire.

By order,

CHARLES E. MUSGRAVE,

Secretary.

November 1913.

### (b) Acceleration of Steamship Services.

#### CORRESPONDENCE WITH THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY AND THE ORIENT STEAM NAVIGATION COMPANY.

1. Royal Commission to P. & O. Company, 18th August 1913 - - - - - p. 88
2. P. & O. Company to the Royal Commission, 21st August 1913 - - - - - p. 89
3. Royal Commission to the Orient Steam Navigation Company, 18th August 1913 - - - - - p. 89
4. Orient Steam Navigation Company to the Royal Commission, 26th August 1913 - - - - - p. 89

#### 1.

Dominions Royal Commission,  
Scotland House,  
Victoria Embankment, London, S.W.  
18th August 1913.

SIR,

I AM directed by the Chairman of the Dominions Royal Commission to state that the Commission has recently heard evidence in Australia on the subject of

mail communications between the Commonwealth and the United Kingdom. The Chairman is desirous of obtaining as much information as possible as to the cost of accelerating the existing service and would be much obliged if your Company could furnish any approximate statement as to the amount which they would think reasonable if the average rate of speed at sea on the Australian service were increased to (a)

17½ knots, (b) 20 knots, the other conditions of the service remaining as at present.

The Chairman realises that the question is complicated by the fact that the existing contract of the Peninsular and Oriental Company with His Majesty's Government covers the conveyance of mails to India and China as well as to Australia, and he thinks that in the circumstances the Company may prefer to deal with the subject in oral evidence before the Commission. If the Company consider this course more desirable than furnishing a written statement, the Commission would be glad to hear any representative whom they may depute for the purpose when they resume their sittings in the autumn.

I am, &c.,

The Secretary,  
Peninsular and Oriental  
Steam Navigation Company.

E. J. HARDING.

## 2.

Peninsular and Oriental Steam Navigation Company,  
122, Leadenhall Street, London E.C.

SIR, 21st August 1913.

WITH reference to your letter of the 18th instant I am instructed by the Directors to say that they regret that it is not in their power to give any clear evidence on the subject of mail communication between the United Kingdom and the Commonwealth of Australia, either in writing or *vice versa*.

In order to accelerate the existing mail service with Australia in the manner suggested by your letter, it would require a new fleet of steamers, at a cost of several millions sterling, to be followed by a working expenditure which, at the present moment, it is quite impossible to estimate. Such being the case the Directors do not think it would be advisable to enter into a series of hypothetical calculations in a matter of such serious importance.

But in order to show your Commission that this problem has been before the Company for some years, I am to enclose copy of a letter from our Chairman to Mr. Joseph Chamberlain, when the latter was Secretary of State for the Colonies, which dealt with certain aspects of the case. I am to ask that the enclosures should be treated confidentially, as the Directors do not wish the letter or memoranda\* printed amongst your public documents.

Circumstances have so far changed since 1902 that the Suez Canal would now admit of much larger vessels passing through than was the case at that date, but the adoption of the Canal route, although it might tend to accelerate the service as compared with that *via* the Cape (although this is by no means certain, seeing the number of ports which might have to be stopped at) would inevitably increase the working cost of the service.

I am, &c.,

The Secretary  
Dominions Royal Commission.

I. M. SHIELDS,

for Secretary

## 3.

Dominions Royal Commission,  
Scotland House,

Victoria Embankment, London, S.W.,  
18th August 1913.

GENTLEMEN.

I AM directed by the Chairman of the Dominions Royal Commission to state that the Commission has

\* This letter and its enclosures are not printed amongst the public documents of the Commission.

recently heard evidence in Australia on the subject of accelerating the Mail Service between the Commonwealth and the United Kingdom, and in this connection the Chairman's attention has been called to the provisions of clause 6 of the Agreement between the Commonwealth Government and the Orient Company of the 15th November 1907, which referred to the payment of an increased subsidy to the Company, under certain conditions, for an accelerated service.

The Commission is desirous of ascertaining as nearly as possible the amount of the additional cost which would be incurred by the Commonwealth Government for such an accelerated service, and the Chairman would be obliged if you could inform him approximately what additional subsidy would be thought reasonable if the rate of speed were increased (a) to 17½ knots, and (b) 20 knots, the other conditions of the contract remaining unaltered.

I am to add that the Commission would be glad to hear evidence on the subject by a representative of the Company in the autumn, if they should prefer that method of giving the information.

I am, &c.,

Messrs. Anderson and Anderson, E. J. HARDING,  
5, Fenchurch Street.

## 4.

Orient Steam Navigation Company, Limited,  
13, Fenchurch Avenue, London, E.C.

SIR, 26th August 1913.

I HAVE to acknowledge receipt of your letter of the 18th instant, addressed to Messrs. Anderson, Anderson & Co., asking them to inform your Chairman approximately what additional subsidy would be thought reasonable if the rate of speed (by which I understand you to mean average speed at sea) under this Company's Australian mail contract were increased, (a) to 17½ knots, and (b) to 20 knots.

To maintain such average speeds and to preserve practicable times of call at intermediate ports a speed considerably higher over long sections of the route would be called for, with a correspondingly enhanced consumption of coal, the replacement of which *en route* would greatly reduce any gain in period of transit.

The Orient Company has, within the last four years, in fulfilment of the policy laid down by the Commonwealth Government, constructed six large mail steamers and is constructing a seventh, at a cost considerably exceeding two millions sterling.

These vessels under trial conditions exceed 18 knots speed, but the performance of such a contract as you indicate would require their replacement by steamers of an entirely different type, of vastly greater capital and operating cost, and with little, if any, capacity for freight, from which a considerable proportion of this Company's present revenue is derived.

The revolution in capital account caused by the withdrawal of a new fleet and the building of a still newer one in substitution—to say nothing of the disturbance of revenue possibilities attaching to the new type—would make any approximation with which I could furnish you little better than guesswork, though I have said enough to make it clear that the cost would be enormous and, in the opinion of this Company, out of all proportion to the advantages derivable.

In these circumstances a representative of the Company could not give effective evidence and I can only regret my inability to give you more than the information contained above.

I am, &c.,

E. J. Harding, Esq., E. A. VEALE,  
Secretary, Secretary,  
Dominions Royal Commission.

## (c) Memorandum by Professor Sir John Harvard Biles, LL.D., D.Sc., on the Economic Size and Speed of Steam Vessels.

## Size.

*Question 1.—To what extent is the assumption valid that a given volume of cargo and passenger traffic can be carried more economically by means of a fleet of a few large steamers than by means of a large number of small steamers?*

An investigation into this matter was the basis of a paper read by me to the Institution of Naval Architects in 1900. A cargo-carrying vessel 500 ft. long, of 12 knots speed, was considered, and on definite conditions as to stability, dimensions of a series of similar ships up to 700 ft. in length were estimated. These dimensions were obtained on two assumptions, (a) that the draught remained constant at 28 ft.; (b) that the draught varied as the length of the ship. Taking a length of voyage of 5,000 sea miles the following figures were obtained for the cost of transporting one ton of cargo, (a) draught constant at 28 ft.

—	Ft.	Ft.	Ft.	Ft.	Ft.
Length of ship	500	550	600	650	700
Cost in shillings per ton of cargo	8·6	9·0	9·6	10·4	11·2

## (b) Draught varying—

—	Ft.	Ft.	Ft.	Ft.	Ft.
Length of ship	500	550	600	650	700
Cost in shillings per ton of cargo	8·6	8·0	7·6	7·2	7·0

It will be seen that under the condition of restricted draught the cost of transport steadily increases with increase of length; whereas if draught be unrestricted the cost steadily decreases with increase of length, not, however, at a rate directly proportional to the increase of length.

For this Commission a similar investigation was carried out, the type ship being a passenger and cargo steamer 490 ft. long and of 14 knots speed. The dimensions of a series of similar ships were estimated for a voyage of 3,000 sea miles, the length ranging up to 1,000 ft., under the two conditions of (a) constant draught 28 ft. 3 ins., and (b) draught varying as length. The cost of transport per ton was estimated, and it was found that in the 700-ft. ship it was  $1\frac{1}{2}$  times as great; in the 900-ft. ship it was twice as great; and in the 1,000-ft. ship it was  $2\frac{1}{2}$  times as great in a ship of restricted draught as in the corresponding length of ship of unrestricted draught. The conclusion that unrestricted draught is necessary for economic transport can be arrived at from first principles. The weight of hull for the restricted draught vessel increases much more rapidly than the displacement. The beam cannot be increased in the same ratio as the length, or the stability conditions will be interfered with. Before a great length is reached the deadweight carried no longer increases as the length of vessel increases, but begins to decrease. Further, the excessive proportion of breadth to draught in the large vessel of restricted draught is bad from the point of view of resistance, and, therefore, those running costs which depend on the power of the machinery are considerably increased.

The foregoing results were obtained on the basis of the dimensions of ships which have been designed for specific trades. The weights carried, the coal consumed, and the costs of the vessels correspond to definite designs. It may be that these designs are

not the best possible, but they represent the present day practice. If more economic designs of vessels could be produced they would probably not affect the comparison to an appreciable extent.

It will be seen from the above that if unrestricted draught is attainable the large vessel will carry her cargo more economically than the small vessel, and therefore the fleet of a few large steamers is more economical for cargo carrying than that of a large number of small steamers. The extent to which this conclusion will hold good is dependent upon the relative amount of cargo and passenger traffic. If there is no passenger revenue and the expense of carrying passenger accommodation is included in the cost of hull and machinery, the extent to which this assumption is valid seems to be about that of ships of 750 ft. long. Beyond this the cost of carrying cargo in passenger ships steadily increases until when the ship is 1,000 ft. long it is 40 per cent. more than at 700 ft. long. If, however, ships 700 ft. and 1,000 ft. long are both full of passengers the extra earnings of the 1,000-ft. ship will about balance the extra cost of carrying the cargo. This question is further dealt with in question 1 of Speed, where it is pointed out that it may be possible to take advantage of increased dimensions by modifying the methods of construction.

*Question 2.—If larger steamers have greater economic value as cargo and passenger carriers, to what extent does it follow that the draught must be increased in proportion to increased length and beam? What, theoretically, would be the ideal economic dimensions of a mixed cargo and passenger steamer at given speeds and for given routes?*

The first part of this question is really answered in the answer to question 1. In the course of the investigations the unrestricted draught ships actually had the draught varying as length. In the 1,000-ft. ship the draught actually worked out at 57·6 ft., so that in order that the fullest advantage may be taken of draught it should vary as the linear dimensions. If draught cannot be varied as the linear dimensions, the cost of transport will be between those for the unrestricted and restricted draught ships in proportion to the amount which the increase of draught is short of the unrestricted draught.

The ideal economic dimensions of a mixed cargo and passenger steamer would be those which, in the case of the unrestricted draught, had a draught which was the working draught of the harbour. For instance, supposing that a harbour had a working draught of 40 ft., the dimensions corresponding to this draught for 14-knots speed would be about 700 by 87 by 71·4 depth. If the dimensions of this ship are much increased without increase of draught, the cost per ton of carrying cargo will rapidly increase. The investigations so far carried out deal only with two speeds, 12 and 14 knots. The same considerations will apply to other speeds.

The 12-knot vessel has a most economical length at about 750 ft., and there will be no appreciable variation between 700 ft. and 800 ft. This vessel is a pure cargo steamer. In the 14-knot vessel the economic length is 700 ft., if there is no revenue from passengers; but if the vessel is full of passengers the 1,000-ft. ship would be, with possible reductions in weight of hull, due to improvements in construction, about as economical as a 750-ft. ship. It may, therefore, be seen that at 14 knots the economic length may be as low as 750 ft., and cannot be more than 1,000 ft., and there would be a chance that with anything but the full number of passengers the smaller ship would be more economical. At 17 knots the economic length for cargo carrying, when there is no revenue from passengers, is 800 ft.; with the full number of passengers and the possible improved construction the



1,000-ft. ship would be of about the same economy as the 800-ft. ship. It would therefore seem that at 17 knots the most economical length would be somewhere between 1,000 and 800 ft., with a partial load of passengers. The most economical length at 20-knots speed is about 950 ft. for cargo revenue only. It is evident, therefore, that the 1,000-ft. ship with a speed of 20 knots would be, when carrying passengers, certainly not above the economic length. From this it will be seen as speeds increase the economic limit increases, so that at 20 knots the vessel should be at least 1,000 ft. long with a draught of 57·6 ft.

*Question 3.—Is the general tendency at present to increase size and draught? To what extent is the tendency checked by lack of harbour facilities, especially on the various inter-Imperial and Colonial routes? What influence has the Suez Canal had on past developments of size, and what influence may altered conditions there and the new conditions prevailing at Panama be expected to exercise?*

The tendency to increase of size of ships is shown by the two following tables compiled from Lloyd's Register. The first table gives over a period of 10 years the numbers of steamers in existence in each year graded according to tonnage, *e.g.*, between 2,000 and 3,000 tons, 3,000 and 4,000 tons, and so on, up to 10,000 tons and over. The second table gives the information of Table I expressed in percentages. For instance, in 1913-14 the steamers between 3,000 and 4,000 tons formed 28·5 per cent. of the total number of steamers over 2,000 tons. In 1907-8 the steamers between the same tonnage limits formed 30·9 per cent. of the total over 2,000 tons.

	2,000-3,000,	3,000-4,000,	4,000-5,000,	5,000-7,000,	7,000-10,000,	10,000 and over.
1913-14	2,124	2,158	1,511	1,158	404	206
1912-13	2,077	2,100	1,492	1,015	361	177
1911-12	2,060	2,037	1,219	909	331	158
1910-11	2,062	1,996	1,227	859	298	135
1909-10	2,034	1,946	1,165	818	269	130
1908-9	2,025	1,911	1,126	797	265	119
1907-8	1,995	1,839	1,050	716	233	112
1906-7	1,913	1,710	931	644	197	102
1904-5	1,841	1,450	765	538	160	92
1903-4	1,790	1,344	677	508	145	83
Per cent. increase in 1913-14 over 1903-4	19	60	213	228	278	248

The last line shows that the greatest percentage increase in numbers in 10 years is in the vessels of 7,000-10,000 tons, and the next is in 10,000 tons and over, the percentages in the larger class increasing more rapidly in the later years than in any of the other classes.

	2,000-3,000,	3,000-4,000,	4,000-5,000,	5,000-7,000,	7,000-10,000,	10,000 and over.
1913-14	28·4	28·5	20·0	15·3	5·3	2·7
1912-13	29·1	29·4	19·6	14·2	5·0	2·5
1911-12	30·7	30·3	18·4	13·5	4·9	2·4
1910-11	31·4	30·4	18·7	13·0	4·5	2·0
1909-10	32·0	30·6	18·3	12·9	4·2	2·0
1908-9	32·4	30·6	18·0	12·8	4·2	1·9
1907-8	33·6	30·9	17·7	12·0	3·9	1·9
1906-7	34·8	31·1	16·9	11·7	3·6	1·9
1904-5	38·0	29·9	15·8	11·1	3·3	1·9
1903-4	39·4	29·5	14·9	11·2	3·2	1·8

It will be seen that the percentage of the total formed by vessels between 2,000 and 3,000 tons is steadily decreasing. The percentage of vessels between 3,000 and 4,000 tons increased from 1903 to a maximum in 1907 and is now steadily decreasing. The percentages of vessels of all grades over 4,000 tons are steadily increasing over the range of years in the table, that for vessels from 5,000 to 7,000 tons increasing rapidly. The relatively rapid increase in the percentage of the grade from 5,000 to 7,000 tons is due to the fact that at the present time the most popular size of cargo carrier is one between these limits. For ships over 10,000 tons the percentages are, 1910-11, 2·9; in 1913-14, 2·7.

In 1912-13 there were 17 ships between 15,000 and 20,000 tons.

In 1913-14 there were 29 ships between these limits.

In no cases over 10,000 tons has there been a decrease in numbers; the total increase in numbers of vessels over 10,000 tons being in the last year from 177 to 206.

That the depth of harbours has had a restrictive effect on the draught of ships is shown by the fact that the modern large vessel has not the most economic ratio of draught to breadth and length.

The printed memorandum on the Suez Canal\* and the relative advantages of trade through it and round the Cape has dealt very fully with this subject. The general conclusions reached seem to be that as far as the distant Dominions are concerned there would be little advantage gained by any practicable deepening of the Suez Canal. The rate at which the Canal has been deepened would if continuously applied take many years to reach 40 ft., and even then there would be no appreciable gain in using the Canal for the far-off Dominions. As far as India and China are concerned there would still be an advantage on account of distance saved. It may be that the increased draught (40 ft.) available in the Panama Canal will make it possible to run more economic steamers of greater length to China in spite of the greater distance, but, as stated in the above-mentioned memorandum, "the result of the opening of the Panama Canal route" will depend on many features which are not clearly defined, *e.g.*, tolls, intermediate coaling stations, "amount of traffic, &c."

One thing which may be an advantage to the Suez Canal is that the distances for which coal has to be carried are less for a ship going through the Canal than for one going round the Cape; therefore, the average amount of coal carried on a voyage to or from Australia is less. This, however, is probably outweighed by the fact that coal can be bought more cheaply on the Cape route than on the Canal route. Obviously, the relative advantage in the two routes in this respect must depend on the relative cost of coal. It seems, however, that if deep harbours can be got at both ends of the voyage there will be a considerable economic advantage for some time in favour of the Cape route.

*Question 4.—What depth of harbour is desirable to meet the requirements of the developments of naval construction during, say, the next 20 or 30 years, especially in the ports of the Dominions and Colonies?*

From what has been stated in answer to question I on size it will be seen that to attain the most economic transport a vessel of a length of at least 750 ft., having a draught of 43·2 ft. should be provided for. It is obvious that for such a vessel a draught of harbour of at least 45 ft. should be provided. The question as to whether this should be at lowest low water or at lowest high water must depend on the volume of trade at the harbour. The reference made later in Speed, question I, to the possibility of lightened ship construction in ships of greater length than 700 ft., say 1,000 ft., and the influence of such lightening upon the economically best length, is difficult to determine without very detailed consideration of ship design. It seems, however, that in ships

\* See page 61 of Vol. 7210.

1,000 ft. long it would be possible safely to reduce the weight of structure a sufficient amount to make the cargo-carrying rate sufficiently near to that of the 750-ft. ship that the cargo revenue, together with the enlarged passenger revenue due to the longer ship, would make the 1,000-ft. ship a more economical carrier than the 750-ft. ship. From this would follow the necessity of a draught corresponding to 1,000-ft. length, which is 57·6 ft. Therefore, it seems that an improvement in construction involving a reduction in weight of structure must be accompanied by an increase of depth of harbour before it can be made profitable. It is not unreasonable to predict, therefore, that within 20 or 30 years a depth of harbour of 60 ft. could be profitably employed.

*Question 5.—To what extent can lighterage facilities be regarded as a substitute for deepened quay accommodation given adequate depth at entrance and at anchorage?*

To answer this question fully would involve an investigation of the relative costs of constructing and maintaining quay walls and those of constructing, maintaining and running lighters. The double handling of cargo involved in lighterage would also require to be considered. The cost of harbour works is purely a question of local circumstances, and, therefore, cannot be considered in general terms. It might be found that an ideal system would be to provide for a given locality a single deep-water harbour with efficient protection from the open sea and a fleet of relatively large lighters (in fact, small cargo vessels) to travel round the coast and act as feeders and distributors for the large vessels using the deep-water harbour. This system is particularly applicable to the case where the deep-water harbour is at the end of a long sea voyage.

### Speed.

*Question 1.—Assuming a fixed speed, in what ratio will increased size provide lower cost of transport?*

Obviously there is a certain limit to the reduction of transport cost consequent upon the increased size of vessels. The figures given in (b) draught varying (Size, Question 1) indicate the rate of reduction of cost with increase of size. It will be seen that the rate of reduction of cost tends to fall off at the greatest lengths. It will probably be found on account of the ratio of hull weight to total displacement tending to increase with increase of size, that a minimum cost will be found at some length not yet reached, and that beyond this length the cost of transport will increase with increase of size, even if the draught is unrestricted. To determine this length with any approach to accuracy, involves a consideration of the whole question of ship construction. The scantlings, and, therefore, the weights of the structure of the ship, are based upon an assumption of the wave dimensions which the ship is likely to meet. These assumptions are justifiable within the limits of existing ship construction, but, in view of the fact that the waves of the sea will not increase with the size of the ship, it is evident that there will come an increased size of ship to which these assumptions will not be justifiable and, in consequence, the scantlings and weights will not increase in the proportions that they have increased for ships limited to the present sizes, when we come to deal with ships very much larger than present ships. This consideration may modify the results of calculations based upon present practice, and therefore it may be practicable in designing to assume a weight of hull less than has been taken by using the assumptions at present made, and in consequence the cost of transport in ships of 1,000 ft. long and above may be less than has been estimated.

*Question 2.—Assuming vessels of a given size, in what ratio will increase of speed affect the cost of transport per ton-mile?*

The answer to this question is different for different sizes of ships. For instance, at 600 ft. the cost per ton-mile of running at 17 knots is 63 per cent.

more than running at 14 knots, and at 20 knots it is practically prohibitive. At 700 ft. the difference between 14 and 17 knots is 32 per cent. more, at 800 ft. it is 41 per cent. more, at 900 and 1,000 ft. it is also about 18 per cent. more. There are also similar differences between 17 and 20 knots. For 700 ft. at 20 knots the cost is more than double that at 17. For 800 ft. the increase is about 50 per cent., for 900 ft. it is 30 per cent., and for 1,000 feet it is 17 per cent. more. It will be seen from this that the percentage difference in cost of transport at the same speed decreases as the length increases. It will also be seen that the cost of transport increases with increase of speed, but very much less in the great lengths than in the small ones. The following tables give comparative costs of carrying cargo at different speeds and different lengths of ship:—

Table of cost of carrying one ton of cargo 6,000 sea miles (coaling half way).

Length.	Draught.	Speed in Knots.		
		14.	17.	20.
490	28·25	1·01	—	—
600	34·6	·87	1·42	—
700	40·3	·88	1·16	2·59
800	46·1	·87	1·23	1·89
900	51·9	1·05	1·23	1·61
1,000	57·6	1·2	1·43	1·68

Table of cost of carrying one ton of cargo 6,000 sea miles, coal fuel being carried for the whole distance.

Coal.				
Length.	Draught.	Speed in knots.		
		14	17	20
490	28·25	1·4	—	—
600	34·6	1·09	2·44	—
700	40·3	1·09	1·60	—
800	46·1	1·04	1·68	5·31
900	51·9	1·28	1·68	3·24
1,000	57·6	1·46	1·88	3·08

Table of cost of carrying one ton of cargo for 6,000 sea miles, oil fuel being carried for the whole distance.

Oil.				
Length.	Draught.	Speed in knots.		
		14	17	20
490	28·25	1·51	—	—
600	34·6	1·20	2·35	—
700	40·3	1·19	1·73	5·31
800	46·1	1·13	1·65	3·30
900	51·9	1·36	1·71	2·67
1,000	57·6	1·49	1·92	2·60

Table of cost of carrying one ton of cargo for 3,000 sea miles, oil fuel being carried for the whole distance.

Oil Fuel.				
Length.	Draught.	Speed in knots.		
		14	17	20
490	28·25	·63	—	—
600	34·6	·54	·87	—
700	40·3	·54	·70	1·45
800	46·1	·53	·69	1·12
900	51·9	·63	·72	·99
1,000	57·6	·70	·81	·99

Table of cost of carrying one ton of cargo 3,000 sea miles, coal fuel being carried for the whole distance.

Length.	Draught.	Coal Fuel.			
		Speed in knots.			
		11	15	17	20
490	28·25	·5	·60	—	—
600	31·6	·43	—	·71	—
700	40·3	·44	—	·58	1·29
800	46·1	·43	—	·61	·94
900	51·9	·52	—	·61	·80
1,000	57·6	·6	—	·71	·84

As showing the great loss due to restricted draught the following table is given showing cost of carrying one ton 3,000 miles, coal fuel being carried for the whole distance.

For vessel 700' × 29' draught and for one 700' × 40·3' draught.

Length.	Draught.	Speed in knots.		
		11	17	20
700	29	·69	·86	2·73
700	40·3	·44	·58	1·29

*Question 3.*—The average rates of speed of the weekly mail steamers running to Australia and South Africa are now about 15 knots. Could approximate figures be given of the cost of increasing the speed (a) to 17½ knots; (b) to 20 knots; (c) to 22½ knots, on the assumption that shipowners were unable to recoup themselves by increased passage or freight rates? If it is not possible to furnish any approximate figures, could an indication be given as to the principal factors which would (a) increase; (b) decrease cost.

Before answering this question it should be noted that the figures previously given are comparative and, therefore, absolute accuracy is of little importance provided they are comparatively correct. To answer this question it will be necessary to obtain approximately accurate figures and the revenues obtainable. This would involve an inquiry similar to that undertaken by Lord Camperdown's Mercantile Auxiliaries Committee in 1902.\* May I venture to call your attention to the additional remarks which I made when signing the report of Lord Camperdown's Committee which read as follows:—

“While I fully agree with my colleagues in the above Report, I am of opinion that the terms of reference admit of a much wider interpretation of the question than it has received. We have dealt with the cost of securing ships of stated speeds,

[Ctd. 1379.]

but the consideration of the ‘manner’ of securing them has been confined wholly to the question of how much money payment in the form of Admiralty subvention would secure a ship for purely naval purposes. The scheme of subsidies indicated in the Report can, under existing conditions, only apply to Atlantic ships. But, inasmuch as speed is a desideratum upon other mail routes, it seems to me to be desirable to carry this inquiry further in order to consider the practicability of securing high-speed vessels on such mail routes. Fast steamers can be run in conjunction with a large fleet of vessels of lower speed with commercial advantage to the fleet as a whole, though individually the fast vessels may lose money, and in consequence it seems to be practicable to secure vessels such as are required by the Admiralty by inserting in all future mail contracts (which should run for a period of ten years) a condition that a definite proportion of the ships of each contracting company should fulfil the Admiralty requirements as to speed and other essentials. The results of this would be to secure to the public service a well-distributed and adequate number of mercantile auxiliaries of high speed.

“The Government business in connection with subsidised steamers should, in my opinion, be dealt with by a single department and, as the chief service to be rendered would relate to mails, while the work of the mercantile auxiliaries for the Admiralty would be at most an incidental matter, except in war-time, it seems that this business should be conducted by the Post Office.”

From this it will be seen that my opinion at that time was that the inquiry should have been continued to include the cases about which you are now asking this question. The figures given in the table in the report may form a rough guide to the amount of the subsidy in terms of speed, but inasmuch as prices of ships and costs of running vary from time to time, no approximately reliable data can be obtained without the above-mentioned investigation.

*Question 4.* Is the general tendency at present to build faster vessels—(1) mail steamers, (2) liners, and (3) tramps? If so, is it possible to forecast the general rate of acceleration during say the next 20 or 30 years? To what degree will the construction of faster vessels be determined by the provision of improved harbour facilities (including dry docking), and especially of deeper harbours?

From the answers to the preceding questions it will be seen that if speed be increased the cost of carriage will increase. It is exceedingly difficult to estimate what increased revenue comes from passengers on account of increased speed, but it seems not at all improbable that in vessels of 1,000 ft. long and 20 knots speed the extra cost of carrying cargo may be more than balanced by the extra passenger revenue, but such vessels would not be built with advantage unless the harbours were deepened to draughts corresponding to the draughts associated with the economic length.

December 1913.

## (ii) Cables.

### (a) Letter from the Commercial Cable Company in reply to the request from the Dominions Royal Commission for Evidence on the subject of effecting Reductions in Rates for Australasian Traffic.

Commercial Cable Building,  
63 & 64, Gracechurch Street,  
London, E.C.4.

SIR, November 15th, 1913.

In compliance with your request we hereby give our views on the question of a reduction in the Atlantic proportion of the rate for messages between Australasia and Great Britain.

In the first place we respectfully beg to point out that the Atlantic proportion of this rate is 25 per cent. lower than the Atlantic proportion of the rate for messages between Great Britain and other parts of the Western Hemisphere.

The Atlantic cable proportion of the rate between Great Britain and Australia is 9d. per word for

ordinary messages and 4½d. for deferred plain language messages with practically no minimum. This was a special concession made to Great Britain and her Overseas Dominions. This rate is cheaper than any rate in the world, and we would invite comparison between that rate and the rate charged by the British Government for messages between Great Britain and the Continent of Europe over Government-owned cables. Taking France, for example, we find the rate for ordinary messages between Great Britain and that country 2d. per word, with a minimum of 10d., notwithstanding the fact that the cable distance is only 22 miles from shore to shore, and each cable contains from four to six working wires, each wire capable of transmitting four messages at the same time.

The Atlantic cable between Canada and the coast of England is 2,572 nautical miles in length, or 112 times longer than the cable between Great Britain and France, and has only one conductor limited to lower speeds than the Government cables, and capable of transmitting only two messages at the same time. Hence each Government cable between Great Britain and France has an earning capacity more than eight times that of a trans-Atlantic cable for a capital outlay 112 times less, at lower cost of operation and maintenance, and yet no proposition is made to reduce the rates over the Government cables. Probably this is because there is already a large annual deficit in the Telegraph Department of the Government, but surely it cannot be considered reasonable to force the private companies to accept rates which are lower proportionately than any of the Government rates and which would force upon the private companies burdens which the Governments are not willing to carry themselves. When the Atlantic cables are interrupted their earning power is suspended for long periods, to say nothing of the large cost of effecting repairs, particularly when such repairs have to be made in deep water.

It surely cannot be reasonably argued that the rate of 9*d.* a word is too high when compared with the rate of 2*d.* a word between England and France. The present Atlantic rates, and particularly the rate for Australasian messages, are as low as they can be made if the companies are to be allowed to continue to earn any profit on the capital invested and set aside proper reserves.

In September 1912 the British and Canadian Postmasters-General demanded reductions in the Atlantic cable rates. Certain reductions were made at that time and these reductions also applied to Australasian traffic. We were orally told at that time that unless the reductions demanded by the English and Canadian Postmasters-General were made those Governments would lay a State-owned cable and would then make rates even lower than those demanded. We have to say that the reductions which the British and Canadian Postmasters-General expect the Atlantic companies to make do not rest on any real business basis, and they have no right to use the power of their Governments to injure private enterprise. We would respectfully ask that you fully consider what would become of the large amount of money invested by the British and Canadian public in Atlantic cable securities and particularly those of the Anglo-American Telegraph Company and the Direct United States Cable Company. It is true that those companies have been taken over under long leases by the Western Union Telegraph Company, and that the shareholders of those companies are at the present time enjoying a guaranteed dividend given by the Western Union Company, but we also invite your consideration of the possibility that those leases will be invalidated by action of the United States Government on account of their illegality under the Anti-Trust Law of the United States, and if this should come about the Anglo-American and Direct United States Cable Companies would then be thrown upon their own resources; and we believe those companies could not realise a profit on the present rates, to say nothing of a further reduction in the rates, because prior to their being taken over by the Western Union Company those companies did not earn more than about 3·85 per cent. on their capital. The British public hold about 8,000,000*l.* of the securities of the Anglo-American and the Direct United States Companies, and these investors do not by any means rest secure under the guarantee of dividends by the Western Union Telegraph Company. It would seem that a most pertinent inquiry would be, how much is at present being earned by the Anglo-American and Direct United States Companies in view of the recent reductions in cable rates and the constantly increasing expenses; this would show whether those companies could earn a fair return on their investment if they should be obliged to operate again their respective plants at the present low cable rates. Previous to their absorption by the Western Union, the Direct Company only paid 4 per cent. dividend and the Anglo Company an average of only 3½ per cent. Certainly those were not fair returns on the investment even when the rates were not as low as

now. Since the Western Union régime the rates have been still further reduced, and it would not be surprising if an investigation now made into the operations of the Direct and Anglo Companies, on the basis of independent corporations, would show that they would be compelled to reduce their previously low dividends if not suspend them altogether. This suggestion is made because sooner or later we believe the United States Government will declare illegal, as they are (Judge Parker, of the English Bench, having also intimated it) the leases of those two companies to the Western Union. Request has already been made to the Attorney-General of the United States to take legal action to have the leases of the properties of those companies to the Western Union Company declared illegal. If this should come to pass those properties will be thrown back into the hands of the British investors, and as the old pooling agreement between the Anglo, Direct, and Western Union Companies cannot legally be restored, then operating their own property under rates made without regard to capital and cost of operation, would show what a disastrous effect the recent rate reductions have had upon those companies, without considering further reductions.

On December 5th, 1911, in a speech in Parliament the Postmaster-General of Great Britain made the following statement :—

"Under the new regulations of the Telegraph Convention the use of codes has been largely extended, and code telegrams can be sent cheaply."

Again in Parliament, on April 4th, 1912, he said :—

"But more important than any reductions in the particular rates to the commercial community at large has been a change which was effected at the last International Telegraph Conference. At that Conference the use of artificial code words was sanctioned. The result of that has been that a single word sent in code across the cable was now able to contain within itself four, five, six, and sometimes as many as seven or eight ordinary words. The commercial community had derived more advantage from that change than from any reduction of rates even as great as those that had been suggested."

As about 98 per cent. of Atlantic messages were in code there was very little room left for further reduction. Notwithstanding this, the companies made reductions in December 1911 and January 1912 in the remaining classes of traffic, and these reductions are so great that they speak for themselves :—

Plain language, deferred	-	50	per cent. reduction.
Press messages,	..	50	" "
Cable letters	-	70	" "
Week-end letters	-	80	" "

These reduced rates had been in effect only a few months when, in September 1912, a further reduction of 30 per cent. was made in the press rates, and on January 1st, 1913, a reduction of 25 per cent. was made in the deferred plain language rates.

We call attention to the fact that in 1902 the Inter-Departmental Committee on Cable Communication were instructed to examine the rates and to report how far they were fair and reasonable, and that Committee, after going into the question most exhaustively, said :—

"The Atlantic companies provide, under the influence of competition, an efficient service at a low rate, which they have attempted unsuccessfully to reduce still further."

Since the above report was made operating expenses in all large enterprises have increased by vast sums. Therefore, the report is more forceful now than it was then.

The disposition of the cable companies to meet public requirements is conspicuously shown in their attitude towards code language employed to condense despatches and so reduce the charge for cable transmissions. The Postmaster-General in his parliamentary speech of April 4th, 1912, above referred to, expressed very clearly and concisely the code feature. Those who use the cable day by day are highly expert in

devising cipher codes, which enable them to express many words by one word. Originally these code words had to be selected from dictionaries, and were therefore confined to genuine words. Owing to the complaints that the restriction to genuine words did not give merchants a sufficient range of words to make up efficient codes, the cable companies have gradually relaxed their rules and have admitted artificial or manufactured words which are supposed to have some resemblance to real words. The extent to which advantage has been taken of this liberality may be judged from the following example of artificial code words, taken from actual cablegrams, alleged to be pronounceable:—

otzazopyam.	ubbegobud.	xeticisrob.
fentjashay.	azaenkbac.	miezyifeag.
dhexliatse.	yinfulybfuz.	wecabuyujz.
sowifiojli.	tozoyihaga.	dytpsuilyl.
yothgidwe.	vezkoagonz.	rizylizkeh.
jusas.	ngdulpugec.	pysoldufeco.
johweretlyk.	nyymaufvig.	opechevder.
ughusunpk.	vusufecozud.	umyzaehmys.
advefecpun.	oszapopwex.	pnaktauxih.
heilhgwydu.	erkieaymoc.	ljoxasosoy.
avzyrjaho.	aukanzevak.	

Each of these so-called words really represents 10 figures; the 10 figures are two groups of 5 figures; and each group of 5 figures represents a separate code-word and each code word easily represents, on the average, at least 10 plain words. The net result is that each of the above so-called code words, representing at least 20 words in plain language, is transmitted at a total cost of 25 cents. The cable companies are transmitting these notwithstanding that they are an imposition. Ex-Postmaster-General Buxton, in a letter to the London Chamber of Commerce, characterised them as an abuse.

To transmit artificial code words by cable is most difficult. To transmit them with speed is impossible. There is nothing in those words to guide the receiving operator, and the ever-varying electric and magnetic forces of the earth produce in the cables disturbances which interfere seriously with the cable signals, modifying and even eliminating them, and yet any change or omission of even one letter would change the meaning of the whole word. The result is that the carrying capacity of a cable is reduced over 25 per cent. In addition to that, many of the above so-called words have to be repeated. These repetitions place upon the cables a large amount of unremunerated work, and cause delay to other traffic. By reason of all this the earning power of a cable is very greatly reduced, while the expense for operating is increased.

When it is borne in mind that about 88 per cent. of the cable messages are still in cipher code and each code word, as explained above, represents at least 20 plain words, it will be seen that cablegrams in code bring the rate down to less than one penny a word for the translated message.

On April 4th, 1912, the Postmaster-General stated that he adhered to the position he took at the Imperial Conference that a State-owned cable across the Atlantic would undoubtedly be run at a loss.

The scheme of a State-owned Atlantic cable is nothing more or less than a proposal to use the taxpayers' money to carry on a business at a loss, to the ruin of private cable property already in the Atlantic, aggregating over 20,000,000*l.* in value. A similar suggestion was made in 1902, and the Inter-Departmental Committee above referred to reported as follows:—

"We are not in favour either of the working of cables by the State at a loss or of the subsidizing of private cables on commercial grounds, both of which courses appear to us to burden the general taxpayer unfairly for the benefit of a special class.

"The laying, working, and maintenance of a cable requires the expenditure of a definite and substantial amount of capital; and the carrying capacity secured in return is limited. It must not always be assumed that an increase of traffic is necessarily a benefit to the company concerned.

So long as the cable is not worked to its full capacity, increase of traffic, unless accompanied by a heavy increase in working expenses, implies an increase in net revenue. But when the increase is so great as to necessitate the laying of a new cable, the case is different; and it will be obvious that, at a certain point, a limit is reached beyond which reductions in rates cannot possibly be made. Even when the cables of a company are fully occupied, messages cannot be carried below a rate which will provide for interest on capital, expenses of working, maintenance, and so on."

The amount expended by all cable companies for maintenance and repairs is enormous—the total sum is little realised by the public. For instance, it is costing the Commercial Cable Company over 14,000*l.* a year to maintain a repairing steamer at the wharf, on the American side, in readiness to proceed to sea at short notice, and in addition thereto a large amount is expended when the steamer puts to sea to repair a cable. Then there is the expense of repairing the cables themselves. Sometimes a single break costs over 10,000*l.* for repairs, and often it is necessary to put in from 10 to 50 miles of new cable, which increases the maintenance and cost of repair to a still larger figure. On one occasion it cost the Commercial Cable Company 18,400*l.* for a single repair. In 1908 the company paid 25,400*l.* for the use of other cable repairing ships, and this was in addition to the expenses of the company's own steamer. It costs the company many thousands of pounds each year for the hire of cable repair ships to take care of repairs on the European side.

The next year, 1909, was full of mishaps, heavy expenditures, and incessant troubles. The following extract from the annual report of the chairman of the Anglo-American Telegraph Company, to the shareholders of that company, held in London on February 4th, 1910, sets forth one of the difficulties which was experienced by the cable companies during that year and which has not been peculiar to that year alone:—

"Now, when we talk about this repair of the 1874 cable, at the previous meeting I told you we had spent a little more than 15,000*l.* on that repair, and I think I said I hoped we should not have to expend much more; but I am sorry to say that my forecast has not been verified, and that we had to expend during the past half-year so much more, that altogether the repairs cost us over 53,000*l.* Now, you may say that is a very large sum to expend upon repairs, but we were most unfortunate with regard to the weather, for when we were grappling in about two miles of water the weather was very bad, and again and again we failed to pick up the cable; but at last it was picked up and repaired, and it is now, we believe, as good a cable as it ever was. Of course, we cannot say what may happen, but so far as we can see the cable is working certainly as well as it ever worked. Now, during the year we not only had to repair the 1874 cable, but we also had to repair the 1873 cable. Still, we were much more fortunate in our repairs with regard to the 1873 cable than we were with regard to the repair of the 1874 cable, for the 1873 cable was repaired with an expenditure of 11 miles of new cable, while the 1874 cable required 246 miles. The strength of this cable had deteriorated through age, and the ship working in water over 2 miles deep found it impossible to recover an end until a gap of 246 miles had been made. In the case of the 1873 cable we were fortunate in losing it for only 33 days, but in the case of the 1874 cable we lost it for over 10 months. This shows you some of the risks attaching to conducting cable business, and I do not think that our experience is a solitary one. I expect that if other cable companies gave you an account of breakages, and so on, that they would have to give you an account similar to that which we present to you. Therefore, it shows that the laying and the maintaining of cables is not so

cheap a matter as some people think it to be. I wonder whether those who talk so easily of laying cheap cables—whether it ever entered into their minds as to what it will cost to maintain them. Now, we know that these breakages have taken place more on account of trawlers than from any other cause. You, gentlemen, will no doubt remember that so many repairs had been made in our cables off the Irish coast, that we decided in 1906 to renew all our older cables in that locality; and in consequence in that year 80 miles of new cable were inserted in the 1873 cable, cutting out 12 previous repairs. In 1907 61 miles in the 1874 cable were inserted, cutting out 9 previous repairs, and in the same year 58 miles were inserted in the 1880 cable, cutting out 7 previous repairs; so that, but for the trawlers, we might hope to be free from interruptions in that quarter for some time to come. Therefore, this question with regard to the trawlers is a very serious matter. I told you, the last time we met, that a conference had taken place between the Board of Trade and the Admiralty and the Fishery Board and the Post Office, and that a commission was appointed to inquire into this matter, and that at this inquiry we proposed that trawlers should not be permitted to fish in shallow waters off the Irish coast. The Committee did not see their way to agree to this, and so these breaks in our cables, which are so extensive, continue to exist, and these breaks are very expensive to you, and cause, sometimes, a delay in the traffic. We are still in communication with the Fishery Board on the matter, and a suggestion has been made that an alteration in the form of trawl might prevent these damages to the cables. We sincerely hope that the matter will be taken up, because however strong our cables are, these big trawlers with their powerful machinery, going to the depth that they do, proves to us that there are no cables that can stand the attacks upon them. I hope that attention having been called to this matter, and the shareholders bearing this subject in mind, that some stronger steps may be taken to avoid the danger which arises from trawlers in the future."

There is no reason to expect that the trans-Atlantic cables will be free from damage or breakage in the future any more than they have been in the past. On the contrary, the agencies which inflict the injury are multiplying and extending the field of their operations, and the cable companies must take into account the probabilities that their repair bills and loss of traffic will increase and will not diminish. One of our cables was damaged in 1909 about 65 miles from our cable landing at Dover Bay, Nova Scotia, and we were in consequence deprived of its use for three months. When making the repair our repairing ship found that for a distance of  $2\frac{1}{2}$  miles the cable had been caught about every 10 fathoms by steam trawlers and had been flattened, twisted, and subjected to great strain. The strongest, newest, and best cables are not immune from the depredations and devastations of these trawlers.

The Commercial Cable Company has had three cable-ships at sea at one time repairing or replacing disrupted cables. For over six months continuously, during 1909, we had at no time our entire facilities working, there being some break somewhere during all that period. The expense connected with all this has been enormous, to say nothing of the loss of business on account of not having complete facilities. The Western Union Telegraph Company, we are told, for nearly nine months had both of its cables entirely disrupted and out of use. The direct United States Company, which has one cable in the Atlantic Ocean, has also been interrupted many times.

In 1910 we completed the expenditure of 300,000*l.* in our cables, principally in order to avoid, if possible, interruptions by anchors and trawls of fishing vessels. In 1912 we again expended over 80,000*l.* for the same purpose, and we are now engaged in the work of renewing 100 miles of cable on the European side, which has suffered badly from trawlers and anchors.

The cost of this renewal will exceed 30,000*l.* As further proof of the unexpected heavy expenditures to which we are subject we might mention that on the American side we have during the past year been compelled to make changes in the location of our cables which will cost the company approximately 100,000*l.* and the company will not derive the slightest benefit therefrom.

And yet in the face of all this and the great reductions made only a few months ago, it is proposed that the cable companies should further reduce their rates. The demand is unreasonable. Quite a different policy is being followed by Germany and France. There, not only are the present cable rates (which are the same as the rates charged by the companies mentioned above) maintained without complaint, but those Governments protect the income of the French and German cable companies by subsidies or guarantees. It would seem that the least which the Governments of Great Britain, Canada, and Australia might do would be to refrain from impairing the income of the British and American cable companies.

Furthermore, we quote from the testimony given by the British Postmaster-General on June 15th, 1911, before the Imperial Conference.\* His testimony clearly points how a logical and justifiable reduction in the rate to Australia could be made without forcing unwarrantable losses upon the cable companies. His testimony is as follows :—

"It cannot be urged that on the ground of efficiency the present service is unsatisfactory, because I think it is agreed on all hands that the work is done by the companies with very great speed and accuracy. Then the question remains as to whether it is necessary to incur this expenditure and possible, or as I think probable, loss in order to cheapen cable rates. If no steps were being taken with that object in view then possibly a strong case might be made out or a stronger case at all events than is now made out for laying a State-owned cable across the Atlantic, but in view of the halving of the rates on deferred telegrams which is now agreed to by the companies and in view of the fact that we are now establishing State control over all rates as fast as the landing licences expire, it appears to me that the Governments would not be justified in putting their hands in their pockets in order to make this large capital expenditure, which is, in our view, very likely to be unremunerative. There is one means, I would suggest to Mr. Pearce, by which the cable rates between this country and Australia might be reduced. The rate now by the Pacific route is three shillings a word, and it is made up in this way: the rate from any part of England to Montreal is 10*d.*, and that includes the expense from the town in England, wherever it may be, to the cable, across the Atlantic, and from the landing-place on the other side to Montreal—from Montreal to the Pacific the charge is 2*d.*—from the Pacific Coast of Canada to Australia the charge is 1*s.* 7*d.*, but in Australia itself the charge is 5*d.*

"The charge is 5*d.* as compared with the charge of less than 1*d.* a word for inland telegrams from any portion of Australia to any other portion. Mr. Pearce tells me the rates vary, but in no case are they more than 1*d.* a word. If Australia would reduce her charges for handling the Pacific Board's traffic to her ordinary inland rate she would at once reduce the cost of cablegrams between this country and Australia by 1*d.* a word, which is very nearly equal to the reduction which is contemplated by halving the Atlantic rates."

The demand for reduced rates between Great Britain and Australasia is not justified. Those countries already enjoy a much lower rate than would be possible if the rate had to be fixed for a cable service dependent on their traffic alone. It is the large volume of United States traffic that renders

\* P. 305 of Vol. 5715.



possible the low trans-Atlantic rate for the smaller volume of Canadian and Australian traffic. The cable rates across the Atlantic are the lowest cable rates in the world. The companies, and especially this company, have already shown their friendly disposition towards Great Britain, Canada, and Australasia by making a special rate for the traffic between Australia and Great Britain.

The Canada-Australia Pacific cable is now being used freely by United States business concerns at the expense of the British and Canadian and Australasian taxpayers. That cable cost some two million pounds sterling to make and lay, and has already a deficit of 596,955*l.* This cable reduced the charges on America-Australia cablegrams by 33 per cent., and diverted the traffic from privately-owned British cables to the Government cable sustained by the taxpayers.

The willingness of the public to pay for rapid cable service is shown by the fact that at the present time, and day by day, messages between English points and Continental and European points are cabled from England to New York and from New York back to the Continental European points, at a cost of 2*s.* a word, although such messages might be sent direct from England to those points at 2*d.* a word, the public being willing to pay voluntarily 12 times as high a rate in order to get a speedy service.

One shilling, or the 25 cent rate, is a fair rate, yet we charge only 9*d.* for Australasian messages. This 1*s.* rate is no more than is necessary to pay operating expenses and to keep the plant in thorough repair and readiness to furnish the best possible service in point of regularity, accuracy, and speed, and to pay a very reasonable return on the money invested. The service rendered is worth the money and cannot be rendered for less. The only comparison to be made with it is the State-owned British Pacific cable, which in the few years of its existence compelled the taxpayers to increase their taxes to the amount of 596,955*l.* After 44 years' experience in meeting the demands of the public for a first-class cable service, I am confident that merchants, who depend upon the rapid and accurate transmission of their messages to carry into effect important and valuable business transactions, would not receive the efficient service from a Government cable nor from private companies at lower rates than they are at present receiving from the Atlantic cable companies, stimulated as they are by keen competition.

We have received the suggestion for further reduction in rates with astonishment and disappointment. We had hoped that the concessions made so recently would have been satisfactory. On the contrary, we find that the concessions made have only had the effect of creating an agitation for more concessions. This agitation, however, is that of the Press only. The profits of the newspapers are large,

much larger than the profits from submarine cables and yet the Press are demanding lower cable rates in order that *their* profits may be increased.

As to the claim that the poor man wishes to use the cable and wants cheaper rates, we would say that the recent reduction in deferred plain language cablegrams by 64 per cent. was for that very purpose, and yet our statistics show that there is no demand for that kind of service on the part of the poor man, and that the use of this cheap deferred plain language service is by the commercial houses and by the wealthier classes. The fact is that the emigrant and poor man does not send any cablegrams at all. As a rule he does not even write. The universal complaint is that he does not communicate at all.

Finally, we would call attention to the fact that there is a wireless service at the present time between Great Britain and Canada at lower rates than those charged by the cable companies, and that the British Government have made arrangements for linking up the British Empire with a chain of wireless stations. There cannot be any justification for asking the cable companies to further depreciate the large investments in their securities, constantly menaced by the competition of wireless telegraphy, particularly when the latter is supported by the Government, by making unwarranted reductions in rates for the benefit of a few interests or for sentimental reasons. The public requiring a cheap service may make use of wireless communication; those requiring a first-class service rendered by means of large investments and high cost of maintenance are willing to pay the present rates, which are only commensurate with the quality of service rendered.

We have endeavoured to demonstrate to you that the demands of the Press for lower Press rates are absolutely unreasonable; that the plain citizen does not, and will not, use the cable to any extent at any rates; that the commercial classes know that they are getting a low rate for the best of service; that good service can be continued only by fostering present sharp competition, and not by breaking it down by a Government cable or low rates; that a Government cable means two cables for insurance and means a repairing ship, loss to the Governments, disaster to the cable companies, and no benefit to anyone except to the Press, and not even to them in the long run; and that the demand for further reductions at present is confiscatory and destructive, and one that we cannot entertain.

I am, &c.,

GEO. G. WARD,

Vice-President and General Manager,  
The Commercial Cable Company.

The Secretary,

Dominions Royal Commission,  
London.

**(b) Letter from the British Imperial Council of Commerce enclosing a Memorandum on Telegraphic Communication.**

The British Imperial Council of Commerce,  
Oxford Court, Cannon Street,  
London, E.C.

DEAR SIR,

15th November 1913.

REFERRING to previous correspondence *re* the additional matter on the subject of telegraphic communication, which was promised by Mr. Charles Charleton when he gave evidence before the Commission on 30th October 1912,\* on behalf of my Council, I now enclose a memorandum covering the main reasons which, so far as I can judge, influenced the Congress in passing the resolution in question.

I am not in a position to prepare a complete scheme, but hope the memorandum may be of use to the Commission in pursuing their inquiries into the subject, which I observe has already been dealt with by various witnesses.

I am, &c.,

CHARLES E. MUSGRAVE,

The Secretary, Secretary,  
Dominions Royal Commission,  
Scotland House, Embankment, S.W.

\* Pp. 84-89 of [C.O. 6517].

Enclosure.

**TELEGRAPHIC COMMUNICATION.**

MEMORANDUM submitted to the Dominions Royal Commission in support of the resolution passed by the Eighth Congress of Chambers of Commerce of the British Empire.

The practical advantages which would follow the establishment of an All-Red Mail Route coincide, to a very appreciable degree, with those which are anticipated from the completion of All-British cable communication, namely, a chain connecting up all parts of the Empire, no portion of which touches foreign territory. In so far as the latter directly affects the Press, and, through the Press, has a direct and daily influence upon the people, it may, perhaps, be recognised as of the first importance.

Sundry propositions have been put forward. Some of these advocate State-owned or State-controlled cables linking up the whole Empire, whilst others limit their demands to the cables being British-owned or controlled. The argument in favour of finishing the work commenced when the Pacific cable was laid



was considerably strengthened when the last Atlantic cable passed out of British hands. This event was important in that Imperial communication with Canada ceased to be possible without the intervention of foreign companies.

The first proposition would appear to possess the greater possibilities and to synchronise more with modern ideas of electric communication. The initial operation, and, without doubt, that presenting the most serious difficulties, was the construction of the Pacific cable, now an accomplished fact; the next step to be taken is to lay an All-British Atlantic cable with connections across Canada which do not necessitate the line traversing the State of Maine (U.S.A.). Subsidiary to this comes a modification of the existing arrangement by which the trans-Canada portion is in the hands of a private company. In this connection it has been suggested that the line should preferably be farther from the United States border or it would be easily cut in time of war. The point has importance, though it must be remembered that repairs could be effected also, with much greater speed than in the case of a cable. It would then be necessary to link up Gibraltar-Bathurst, Bathurst-Barbados (or Jamaica) and Cocos Island-Ceylon; and, this accomplished, the principal portions of the British Empire could maintain communications without employing foreign cables and without the messages passing over foreign territory.

First in importance comes the construction of an Atlantic cable. Private enterprise will probably not provide it, and the financial responsibility must be jointly undertaken by Governments, as with the Pacific cable, in equitable proportions. It has been estimated—and the Postmaster-General has accepted that estimate as substantially correct—that an Atlantic cable would cost, at the outside, 500,000*l.* The British Post Office authorities consider, however, that it would be necessary to lay two cables to ensure an uninterrupted service. It is a debatable point, and, in examining it, the existence of the other Atlantic cables must not be overlooked, coupled with the advance in the science of cable manufacture, cable laying and repairing, &c. Further than this, the case of the Pacific cable is not a complete parallel; a duplicate cable, if two cables were ordered at the same time, would probably cost relatively less than a single line. The expert consulted by the Canadian Postmaster estimated a surplus, at the end of the first year's work, of 20,000*l.* to 30,000*l.*, but with this Mr. Samuel disagrees. The result, however, obviously depends upon the rates charged, and one effect of the laying of the cable would be, it is contended, that this country could then have a more effective control of rates. According to the statement of Sir John Barran, M.P., to the Associated Chambers of Commerce of the United Kingdom, there is no reason to believe that the present two cable groups (both American) will ever combine, but this is by no means certain. That the Post Office, through the landing licences, controls rates, is also a statement that needs definite qualification; it is true rates may not be raised, but any request for reduction would be adjudicated upon by the Railway and Canal Commission. This body could not, of course, fix rates which might be unremunerative to the companies concerned, whereas commercial opinion favours the All-British cable for Imperial reasons even if worked without profit. There is no reason to suppose that the All-British cable would not obtain in process of time its full share of traffic. It is true that the Pacific cable shows an annual loss, but it is also true that the loss is annually decreasing in spite of the fact that, owing directly to the existence of the Pacific cable, rates from Australia have actually descended from 9*s.* 4*d.* to 3*s.*, a word—and the private companies interested still pay a substantial dividend. This circumstance, indeed, provides an irrefutable argument in favour of an All-British Atlantic cable. Surely it must be accepted as a general principle that the lower the rates the more general and popular is the use to which the cable is put. The existence of a State-owned Atlantic cable would give to this country a much greater control over rates.

The Post Office authorities further insist that as the existing 13 cables start from, and land in, British territory they are as completely under our control as if

they were British-owned. To this, however, exception has been taken. It may be pointed out that of almost equal importance with the control of a cable during war is the control during a longer or shorter period previous to the actual outbreak of hostilities. In 1912, the President of the British Journalists' Association was reported to have said that "Anyone" who had spent any time in Canada realised the "unfortunate influence of the bulk of the news going" *via* New York, Chicago, and Washington. He "hoped before long there might be direct communication between London and the self-governing Colonies." Direct communication affords a guarantee that in process of transmission this news would not be intercepted or altered in a foreign country.

The Right Hon. Sir Albert Spicer, Bart., M.P., at the Seventh Congress of Chambers of Commerce of the British Empire, at Sydney, in 1909, summed up the advantages of cheaper cable communication within the Empire. It would, he said, stimulate inter-Imperial commerce, facilitate social intercourse, and, through the Press, lead to a better dissemination of news and thus to a better understanding of Imperial problems. The full benefits made possible by the Pacific cable cannot be realised until such time as the entire British line is completed and the Pacific cable is no longer dependent upon American companies for a large portion of the distance between Australia and the United Kingdom.

The Atlantic section is the most important, and the reasons for its construction by the State are much stronger than those which can be urged in favour of the further suggestions which have been put forward. The outlay which would be required to nationalise, also, cables connecting up India and South Africa would be formidable, especially in the case of the latter. But State intervention of some kind appears to be essential, for none of the three additional cables proposed is likely to be put in hand by private enterprise unaided. The Governments of the Empire, jointly or severally, must either subsidise, guarantee, or own the extra lines which it is proposed should be constructed. As already stated, lines connecting Gibraltar and Bathurst (West Africa), the latter with the West Indies, and Cocos Island with Ceylon need to be constructed (in addition to the Atlantic cable) in order to provide a general inter-Imperial State system of cable communication. The West Indies-West Africa cable has been advocated as increasing the efficiency of the whole inter-Imperial system.

The consolidation of the Empire, which, happily, is proceeding apace, is rapidly giving to the cable system the characteristics of an inland telegraph system. Who would presume to-day to suggest that the telegraph system of Great Britain could be other than State-owned? Certainly it shows a substantial loss annually, but, as in the case of the Pacific cable, the benefits which indirectly result should outweigh any immediate monetary loss. What commercial people are asking for now is electric communication throughout the Empire on precisely the same principle as it now exists in each separate State of the Empire. For strategic and commercial reasons, inter-Imperial telegraph communication must not be looked at primarily from the financial aspect, even though the reverse might be true of inland telegraph systems.

The whole scheme outlined depends fundamentally upon the Atlantic line. We must be in a position to get into touch telegraphically with Canada and Australia (it may be even with South Africa and India) without the possibility, as has been suggested, of American eavesdropping or censorship. The purchase of the American telegraph system by the United States Government has already been proposed at frequent intervals; quite recently (October 1913) it has been announced—and not officially denied—that the present administration in the U.S.A. is contemplating legislation which will ultimately involve Government ownership of the telegraph and telephone lines of the country, and sooner or later this may take place.

The attitude of the home postal authorities on this matter may possibly be accounted for by the uncertain position of wireless telegraphy. Contracts were some time since provisionally entered into with the Marconi Company for a number of stations throughout the

British Empire. That it would be a poor economy to expend considerable sums of money in laying further cables when the same might, owing to the advance in wireless, very shortly be "scrapped," must be conceded. On the other hand, the balance of unprejudiced expert opinion seems to be very decidedly against the probability of this happening: the technical difficulties connected with the transmission of messages by wireless make it very problematical whether in speed of transmission and in other directions wireless will supersede the submarine cable for many years to come. And, in addition, other complications have to be overcome, such

as the matter of secrecy, highly essential from a naval and military point of view, and, indeed, from that of the general public. Time alone can show what will be the development of wireless telegraphy; in the interim, the Empire cannot afford to wait on possibilities—even probabilities—but must make the most efficient use of the apparatus which, at the moment, best answers the purpose.

By order,  
CHARLES E. MUSGRAVE,

15.11.13.

Secretary.

## B.—Harbours.

### Memorandum by the Rt. Hon. Lord Pirrie, K.P., on Development of Harbours from the point of view of Shipowners and Shipbuilders.

As the Committee is already acquainted with the evidence I gave to the Select Committee on Steamship Subsidies in 1902\* as to the desirability of deep approaches to the chief harbours of the Empire, and with the paper read before the Engineering Conference of 1907 on Harbour and Dock Requirements as affected by the Development of Shipping, it will perhaps be almost sufficient if I say that I still adhere entirely to the views then expressed, though, of course, some developments and improvements have taken place since the dates in question.

For example, the Mersey Docks and Harbour Board have formed a revetment on Taylor's Bank, about  $2\frac{1}{2}$  miles long, with a view to retaining deep water at an awkward point in the channel of the Mersey, apparently with success; and the Port Authority in London have had presented to them a most interesting report by their Chief Engineer putting forward an admirable scheme of development for that great port; the work at which, I am sorry to see, is only to be taken piecemeal, and which, at the present rate of progress, I fear will be quite inadequate by the time it is completed.

The entrance to Port Philip, at Melbourne is steadily, if slowly, being deepened, but with regard to two important trade centres, viz., the St. Lawrence and the River Plate, there seems little progress to record.

The Commission will quite understand that a condition of affairs which is fairly adequate to-day may be quite inadequate (probably will be largely inadequate) in ten years' time.

With regard to the specific points under which the Commission desire to have a classified statement of opinion from me, I have much pleasure in giving the following answers:—

#### *Draught of Vessels.*

*Question (a).—Generally speaking, what is the relation between the size of a vessel and its economic capacity as a freight carrier? Is it true to say that cost of carriage per ton mile diminishes as the draught is increased?*

*Answer.*—The relation between the size of a vessel and its economic capacity as a freight carrier can hardly be stated in general terms, but it is probably true as a first approximation that the cost of carriage per ton mile is reduced in the direct ratio in which the draught of vessel is increased, the speed being the same.

This reduction does not, however, show very distinctly, owing to a general tendency to increasing speed in freight carriers.

*Question (b).—Generally speaking, does the economic speed of a vessel increase with the increased size and draught, and, if so, to what extent? In any case, is a higher speed more cheaply obtained in a vessel of deep draught?*

*Answer.*—There is no question whatever that the economical speed of a vessel increases with increased size and draught, and the gain is greater the more severe the draught restrictions are in any given trade. Also there is no question that a higher speed can be more

cheaply obtained in a vessel of deep draught, especially in vessels making long ocean voyages.

From this point of view the draught should not be less than about  $\frac{1}{16}$ th of the length, and may with advantage be slightly more.

*Question (c).—What developments are likely in the size and draught of ocean-going vessels, particularly on long ocean routes such as those to Australia and New Zealand?*

*Answer.*—The developments which will take place in the size and draught of ocean-going vessels are limited entirely by the facilities which can be obtained and the draught of water which prevails in the harbours at the various ports of call and terminal ports. This applies to all ocean-going vessels, and I may point out that, with the increased draught now becoming available at Melbourne, my firm have recently built by far the largest vessel yet put into the Australian trade, her load draught being greater than can be satisfactorily utilised at the port which governs the departure draught viz., Melbourne, in anticipation of the development of that port being continued.

Provided that the draughts of water and harbour facilities available at the different Australian ports will permit of a steady increase in the size of vessels, I do not think we would be justified in setting any limit which could be put forward for vessels in such a trade.

The developments, as I have implied above, will be entirely governed by the harbour facilities provided, and the Commission may feel assured that shipowners, in order to take the maximum advantage of the port facilities provided, will do their best to ensure that the size of the largest and newest vessels is always such as will take advantage of any development of which there is a reasonable prospect being made.

#### *Harbours.*

*Question (a).—What effect is the present deepening of the Suez Canal and the capacity of the Panama Canal likely to have on the world's harbours, and what is now the desirable depth for a first-class harbour, in view of probable developments?*

*Answer.*—The effect of the deepening of the Suez Canal and of the capacity of the Panama Canal, by providing for the passage of larger vessels through these two important waterways than at present engaged on the routes involved, will, of course, by encouraging shipowners to build vessels up to the maximum dimensions which they will pass, increase the demand on the part of shipping for an increased available depth in the principal harbours of the world. There is no doubt in my mind that the minimum working depth now desirable for a first-class harbour is at least 40 feet, and, in view of the time which it takes to get harbour authorities in motion and to obtain results from them, I think the minimum depth which harbour engineers, or any report on harbour facilities, should now recommend is at least 45 feet, as by the time that anything like this depth obtains in many harbours, I am sure there will be a demand for it from the shipping using the ports.

*Question (b).—Within what limits may it be said that the value of a harbour increases as the cube of its depth?*

\* See p. 113 of H.C. 385 of 1902.

*Answer.*—As the length, breadth, and depth of modern vessels are increasing somewhat more rapidly than the draught, the size of the vessel and the amount of work she could do (which is roughly measured by the product of the length, breadth and depth), will increase more rapidly than the cube of the draught.

For a harbour, therefore, which is on the shallow side, any increase in its depth must be reckoned as adding to its value considerably more than in proportion to the cube of the depth, and the more severe the restrictions on the trade of the present available draught, the greater in proportion is the gain.

*Question (c).*—*With a fixed amount to spend, in what direction is harbour improvement most urgent— increase of depth and improvement of accommodation, or increase of derrieks, &c. on wharves?*

*Answer.*—If a fixed amount is to be spent on harbour improvements, it is a local question varying in different harbours as to whether increase in depth or improvement of accommodation for handling passengers and cargo is mostly required, but as it is usually quite feasible to obtain increased local facilities

for the handling of passengers and cargo, provided the ships can get up to the wharves or docks, it is, as a general rule, more urgent in the first place to increase the depth of the harbour than to provide the detailed facilities. It is no use providing the facilities unless the depth is available, *e.g.*, there is one important port in which a large graving dock has been built, which has a greater depth of water on the sill than is available in the approach channel, and, consequently, the size of the vessel which can use the dock is limited by the channel and not by the size of the dock itself. Of course, in some harbours which are already comparatively deep for the trades, it would be more desirable to improve the facilities than to further increase the depth, but such harbours are the exception and not the rule.

I trust I have made my views clear to the Commission on the points on which they desired them, but if they are not, or if I can give them any further information, I shall be very pleased to do so.

PIRRIE.

December, 1913.

(See also Memorandum by Professor Sir John Biles, especially Question 4 "Speed," on p. 92.)

### C.—Freight Rates.

#### Correspondence with the New Zealand Shipping Co., Ltd., and the Shaw, Savill, and Albion Co., Ltd.

- |  |   |   |   |        |
|--|---|---|---|--------|
| 1. Royal Commission to the New Zealand Shipping Co., Ltd., 19th September 1913     | - | - | - | p. 100 |
| 2. New Zealand Shipping Co. to Royal Commission, 25th September 1913               | - | - | - | p. 100 |
| 3. Royal Commission to the Shaw, Savill, and Albion Co., Ltd., 19th September 1913 | - | - | - | p. 100 |
| 4. The Shaw, Savill, and Albion Co. to the Royal Commission, 25th September 1913   | - | - | - | p. 101 |

#### 1.

Dominions Royal Commission,

19th September 1913.

SIR,

I AM directed by the Chairman of the Dominions Royal Commission to refer to your letter of the 10th December 1912,\* on the subject of the freights charged on certain classes of goods shipped to New Zealand from the United Kingdom and from Continental ports.

The Chairman desires me to say that the evidence brought before the Commission shows that the company is mistaken in thinking that the question of freight discrimination in favour of foreign goods has been investigated or settled to the satisfaction of all concerned.

On the contrary, grave dissatisfaction was expressed by witnesses before the Commission in New Zealand at the present state of affairs. Complaint was made that the practice of charging lower freights on foreign goods is detrimental to British trade, and has in fact the effect of nullifying to a considerable extent the preference accorded by New Zealand to British goods.

I am to enclose, for the company's information, a copy of the evidence and correspondence† on the subject which the Commission proposes shortly to publish.

Before reporting on the question, the Commission thinks it proper to bring these facts to the company's notice, so as to afford them an opportunity of controverting the statements made by witnesses in New Zealand, and, if they so desire, of tendering evidence with regard to the question.

I am to add that, as will be seen from the print enclosed, after receiving evidence in New Zealand, the Commission communicated with the company's office at Christchurch, asking for information as to the facts, but was informed that all arrangements in connection with freights on cargo from the United Kingdom and the Continent were in the hands of the London office.

I am, &c.

The General Manager      E. J. HARDING,  
New Zealand Shipping Co., Ltd.

#### 2.

The New Zealand Shipping Co., Ltd.,

138, Leadenhall Street,

London, E.C.

SIR,

25th September, 1913.

WE have received your letter of the 19th instant, enclosing copy of the evidence taken before your Commission in New Zealand.

We have read these documents, and note that your Commission proposes shortly to publish them, together with a report on the question of freight discrimination in favour of foreign goods. This report we shall not fail to give due attention to, when issued.

We thank you for your courtesy in giving us an opportunity of controverting the statements made by witnesses in New Zealand, and of tendering evidence on the subject, but we do not think that any good purpose would be served by our doing so.

We are, &c.

C. J. COWAN,

E. J. Harding, Esq.,      Joint Manager,  
Dominions Royal Commission.

#### 3.

Dominions Royal Commission,

19th September 1913.

SIR,

I am directed by the Chairman of the Dominions Royal Commission to refer to your letter of the 6th December 1912,\* as to the freight charged on certain classes of goods shipped to New Zealand from the United Kingdom and the continent of Europe.

The Chairman understands that paragraph 2 of your letter refers to the report of the Royal Commission on Shipping Rings which was issued in 1909.

He desires to say that it is shown from the evidence given before the Dominions Royal Commission by witnesses in New Zealand that public opinion in the Dominion is not satisfied with the present position of affairs. On the contrary, grave complaint was made that, on several classes of goods, lower freight is still charged from foreign than from British ports, and it was stated that the practice is a handicap to British trade and has, in fact, the effect of nullifying the intentions of the New Zealand Legislature in giving a preference on British goods.

I am to enclose, for the company's information, a copy of the evidence and correspondence† on the subject which the Commission proposes shortly to publish.

The Chairman desires, before the Dominions Royal Commission reports on the question, to bring these facts to the Company's notice, and to give them an opportunity of controverting the statements made by the witnesses in New Zealand.

\* See p. 118 of [Cd. 7170].

† Pp. 105-121 of [Cd. 7170].

The Commission will also be prepared, should the company so desire, to hear evidence on the matter from any representative nominated for the purpose.

I am, &c.

The General Manager, E. J. HARDING,  
Shaw, Savill, and Albion Company, Ltd.

#### 4.

The Shaw, Savill, and Albion Co., Ltd.,  
34, Leadenhall Street, London, E.C.3.

SIR, 25th September 1913.

WE beg to acknowledge receipt of your letter of 19th instant in which, while referring to our communication of 6th December 1912,\* you call attention to certain evidence given by witnesses in New Zealand regarding alleged differences in freight rates from foreign as compared with British ports.

\* See p. 118 of [Cd. 7179].

We have to thank you for your courtesy in enclosing copy of the evidence and correspondence in question, and for the opportunity given us to controvert the statements made to the Commissioners.

We, however, do not see that we can be of any assistance in this matter, and though we cannot reconcile the figures we think it will be better to leave the Commissioners to draw their own conclusions from the evidence that has been placed before them.

We would like to state, however, that the rates of freight charged by us for the conveyance of foreign goods are in no case fixed by us but in every instance are exactly the same as are charged by the local foreign shipowner for the conveyance of the same goods by his steamer to the same destination. It is he, not we, who fixes the rate.

We are, &c.

The Secretary, J. A. POTTER,  
Dominions Royal Commission. General Manager.

### III.—EMPIRE DEVELOPMENT AND ORGANISATION.

#### Letter from the Royal Colonial Institute, with a Supplementary Memorandum by the Empire Trade and Industry Committee on their proposal for the creation of an Empire Development Board and Fund.

Royal Colonial Institute,  
Northumberland Avenue, London, W.C.2.

DEAR SIR, 22nd July 1913.

I AM directed by the Chairman of the Empire Trade and Industry Committee of this Institute to forward to you, with reference to your letter of the 31st January last,\* a supplementary memorandum which has been prepared by the Committee on the subject of the Deficiencies in Existing Steamship Services, &c., which might be remedied by an Empire development fund.

It will be noted in the body of the memorandum that the Committee have been unable to reach the question of charges on emigrants.

Yours, &c.,

WM. CHAMBERLAIN.

W. J. Glenn, Esq., for Secretary,  
Assistant Secretary,  
Dominions Royal Commission.

Enclosure.

SUPPLEMENTARY MEMORANDUM by the Empire Trade and Industry Committee of the Royal Colonial Institute on their proposal for the creation of an Empire Development Board and Fund, prepared in response to the request of the Dominions Royal Commission.

On 31st October 1912 representatives of the above Committee appeared before the Royal Commission and gave evidence in support of the Committee's proposal (Cd. 6517, pp. 93-108). In the course of the proceedings it was suggested and agreed that the Committee should prepare a further memorandum indicating more precisely some of the existing deficiencies in the Empire's maritime communications (*i.e.* shipping and telegraph services) which might be remedied through the institution of such a Board and Fund (*ibid.* 107).

On 31st January 1913 a letter was addressed by the Royal Commission to the Committee suggesting that in the supplementary memorandum particular attention should be paid to (i) freight conditions; (ii) charges on emigrants; (iii) speed of steamship services and the cost of accelerating them.

On 28th June 1913 a further letter was addressed to the Committee on behalf of the Royal Commission requesting that the supplementary memorandum should be sent in as early as possible, so that it might be circulated for consideration by the members of the Commission in ample time before arrangements were finally made for hearing further evidence in this country in the autumn.

\* No printed.

The Committee have endeavoured to deal with the three subjects specifically suggested by the Commission, and have added a note on a fourth subject, *viz.*, existing deficiencies in telegraphic communications.

#### (i) FREIGHT CONDITIONS.

##### PART I.—THE NEED AND METHOD OF PUBLIC CONTROL OVER FREIGHT RATES.

In 1906 the operations of shipping rings or conferences as affecting freight conditions were found to have created dissatisfaction among mercantile houses and large consumers overseas, and manufacturers at home. Accordingly the British Government appointed a Royal Commission, including representatives of some of the Dominions, to inquire into the whole subject. In 1909 this Commission issued Majority and Minority Reports (Cd. 4668). The signatures to the two reports were as follows:—Majority: Arthur Cohen (Chairman), Inverlyde, C. N. Lawrence, Hugh Bell, W. Thomas Lewis, A. E. Bateman, E. C. K. Gomer, F. Maddison, Wm. H. Mitchell, Owen Philipps, Oswald Sanderson. Minority: D. M. Barbour, John Macdonell, R. Muirhead Collins, Henry Birchenough, John Barry.

A feature common to both reports is that the question of deferred rebates, which was specifically mentioned in the terms of reference, is discussed in relation to the larger question of monopoly in the control of shipping, which was not specifically mentioned. It seemed to be taken for granted that whatever tended to create a monopoly was to that extent dangerous to the public interest. Accordingly, both the majority and the minority put forward suggestions for bringing the conferences under some measure of control through the British Board of Trade.

We now wish to point out that (1) the tendency towards monopoly in the ownership and control of shipping has become accentuated since 1909; (2) that the proposals then made for regulating shipping services in the public interest have not succeeded; and (3) that the further progress of the tendency towards monopoly has been accompanied by some of the disadvantages in regard to freight conditions which were recognised or apprehended in both the Majority and Minority Reports of 1909.

When we have dealt with the above three points, we shall then proceed to show how, in our opinion, an effective safeguard might be found in the proposed Empire Board and Fund.

Having thus dealt with freight conditions generally we shall call attention to an existing deficiency in regard to the Suez Canal, and to potential difficulties in respect of the Panama Canal, both of which might be met through the operation of the scheme we propose.

With regard to the question of monopoly in shipping, we desire to preface our remarks by emphasising the fact that we are not actuated by any

hostility to shipping conferences or even to monopoly as such. We regard the modern tendency to monopoly as economic and salutary so long as public supervision keeps pace with its growth. Moreover, we think that the mergers of British shipping companies, to which we are about to call attention, have been a prudent development in view of the growing financial strength of foreign shipping companies, just as the adoption of the Dreadnought type of battleship by Britain compelled foreign Powers to follow suit. In commerce combination induces counter combination. But the ultimate tendency always is for the rival combinations to work in unison, as illustrated by the shipping conferences which include foreign lines. When this takes place on an international scale national interests are liable to suffer, unless vigilantly protected by the State. But while recognising the necessity of public supervision we share the feeling of national pride that British shipping companies are still leading the world in the modern development of what has always been a vital British industry.

#### (1) *Growth of Tendency to Monopoly in Shipping.*

In 1906, when the Royal Commission was appointed, the amalgamation of shipping companies into large combines under single management had already begun. Public attention had been called to it by the spectacular launching in 1902 of the International Mercantile Marine Company of New Jersey, some of the constituents of which were themselves the outcome of previous amalgamations.

In Appendix A, attached hereto, particulars are given of some of the more important mergers, both British and foreign, up to the present time, in order to illustrate the continued growth of this tendency.

We may here note that, whereas in the case of the British mergers no effective public control has been established, in some of the foreign instances such control is already established.

For example, in the United States there is the Sherman Act; though the principle of that measure, being directed against monopoly as such, is not one which we ourselves regard with favour.

Australia and Canada also have either adopted or had under consideration legislation for controlling the operations of monopolies as affecting public interests.

In Germany the system of through bookings from the inland point to another point overseas enables the Government, as owner and manager of the railways, to exercise control over ocean freight rates.

In Germany, again, the Government generally allows a lower railway rate on goods for export than on goods for home consumption. Presumably the Government would not do this were it not assured that the shipping company would not take advantage of these concessions to increase the freight rates. In this way it may be said that the German Government controls freight rates.

We understand that in some countries the forms of bills of lading, and of through bills from point to point, are on a uniform basis, affording some protection to traders against certain methods of indirect discrimination.

#### (2) *Failure of 1909 Proposals of Control.*

The remedial proposals of the majority were briefly: (1) that merchants in the various countries affected should form themselves into associations, the areas of association being not less than the whole of the ports served by conference lines in any country; such associations to be entitled to "recognition" by the Board of Trade when deemed by that body to be properly representative. These associations to meet the conferences with a view to friendly adjustment of disputes as they arose. In the event of failure to settle any point of dispute the Board of Trade to appoint a conciliator on the application of either party, or an arbitrator on the application of both parties. Further, in cases where the Board of Trade decided that "important National or Imperial interests were affected" it could appoint its own inquirer, whose report it would have discretion to lay before Parliament, and in considering whether to do so it should "have regard to any representation made by any

Colonial Government interested." They further recommended that all conferences should be required to deposit with the Board of Trade copies of (a) all inter-company agreements; (b) all rebate circulars; (c) all agreements with "recognised" associations of merchants; (d) all tariffs of rates and classifications; which, further, should be published.

The minority, desiring to strengthen the above proposals of control, recommended as amendments: (a) that the Board of Trade should have discretion to recognise any representative association of merchants, without the condition that the association should cover the whole of a conference area; (b) that the Board of Trade should "be free to direct an enquiry, with "full powers as to bringing evidence and the production of documents when it appears that important "public interests (including those of consumers and "producers) are affected by the action of Shipping "Conferences; or upon the representation of Colonial "Governments that such an enquiry is expedient." In this connection the minority remark: "We very "strongly rely upon the effect of full publicity, which "has not hitherto existed"; (c) that the Board of Trade report should in all cases be laid promptly before Parliament, but with care taken not to divulge information useful to foreign competitors; (d) that an annual return on the operations of shipping conferences should be presented to Parliament.

The following questions and answers in the House of Commons indicate the result to date (26th June, 1913) of the above proposals:—

Major ARCHER-SHEE, M.P., D.S.O.:

Q.—(1) To ask the President of the Board of Trade if he will state in what cases have the services of the Board of Trade been requisitioned for the settlement of disputes as contemplated by the Royal Commission on Shipping Rings.

Rt. Hon. S. BUXTON, M.P., *President of the Board of Trade*:

A.—(1) Although isolated complaints have been made to the Board of Trade as to rates charged by Shipping Conference Lines, no requisition has been made for the services of the Board in the settlement of any dispute of a general character between merchants and Conference Lines.

Q.—(2) To ask the President of the Board of Trade if he will state what associations of merchants have been registered to date, in accordance with the recommendation of the Report of the Royal Commission on Shipping Rings, made in 1909.

A.—(2) No associations of merchants have been registered by the Board of Trade for the purposes contemplated by the Royal Commission on Shipping Rings.

*Continued Dissatisfaction.*—Clearly, therefore, the remedial proposals of 1909 have failed of effect.

Nor can it be maintained that the failure has been due to a happy absence of grievance in respect of freight conditions. Subsequently to 1909, the position in South Africa became so acute that the Union Government brought the question of shipping rings to the attention of the Imperial Conference in 1911 (Cd. 5745, p. 372 *et seq.*) On this occasion, Sir D. de Villiers Graaff, speaking for the Union Government, argued forcibly that the effect of the monopoly had been to restrict the development of South Africa and to hamper the growth of trade within the Empire. Since then there have been the new Post Office Act, the new mail contract, and the new South African Freight Agreement, but sufficient time has not yet elapsed for the ultimate effect of these new arrangements to be judged.

It may here be noted that in the South African Agreement there is a clause which provides that disputes between the South African Merchants Committee and the steamship lines, shall, in the last resort, "be submitted to arbitration." While the need of an arbitral authority is thus recognised, no such authority at presents exists. Further, it is evident that neither the producer nor the consumer, who are the parties ultimately affected, is to be considered at all in these arrangements.

In Canada, likewise, dissatisfaction has been expressed with regard to freight conditions on the Atlantic, the inward traffic being controlled by the West-bound Conference.

In Appendix B we give extracts from recent Canadian and British papers illustrating this dissatisfaction, and also extracts from the report of H.M. Trade Commissioner for Canada, Mr. A. Hamilton Wickes, and his predecessor, Mr. Richard Grigg; a reference to this subject also occurs in the last report of H.M. Trade Commissioner for New Zealand, in Appendix D.

*Causes of Failure.*—The weakness of the 1909 proposals appears to have lain in the following circumstances:—

- (a) The merchants, on whose initiative the remedy was to depend, are not the people who are ultimately or principally injured by excessive freight rates or other defects in the transport services. Generally speaking, the merchant's interest is identical with that of the shipowner, to whom it is a matter of comparative indifference whether producers and consumers are making a satisfactory profit or not, so long as production and consumption are not palpably retarded on the whole. It should be borne in mind that under our present system of trade the merchant can generally buy foreign goods just as easily as British goods if the freight on the former is more favourable than on the latter. It seems to be essential that the remedial machinery should be such as may be set in motion, not only by shipowners or merchants, but equally by the parties ultimately affected, viz., producers and consumers, instead of depending on action by any middle party.
- (b) In any case, there is always the great difficulty of combining any parties who are generally trade rivals into really comprehensive associations.
- (c) Overseas there may be some lack of confidence in the efficacy of intervention by the British Board of Trade, a body which overseas may be felt to represent the interest of the United Kingdom only.

(3) *Disadvantages apprehended from monopoly in 1909 continue to be realised.*

Of various dangers recognised by the Royal Commission in 1909, the most important to Empire development were—

- (a) "Excessive" or "unfair" freight rates.
- (b) Preference to foreign trade. In this connection there was some difference of opinion as to whether the Conference principle of equal rates from British and Continental ports was not in itself a preference of that kind (Cd. 4668, pp. 41, 141).

(a) *Excessive or Unfair Freight Rates.*

We desire to emphasise that our own standpoint is that of the Minority Report of 1909, in so far as the signatories of that report insist (p. 98) that producers and consumers, rather than shipowners or merchants, are the parties specially and really interested in this matter. The purpose of our Committee is always Empire development, which depends fundamentally on the mutual satisfaction of producers overseas and consumers in Britain, or *vice versa*. The interest of the producer is to obtain the highest price, and of the consumer to pay the lowest. An interest common to both is, therefore, that the price should not be reduced at the one end, or increased at the other end, by a higher charge for transport than the lowest cost at which it is possible for that service to be efficiently rendered, due regard being had to the living wage of British seamen and to a fair return on capital necessary to the business.

From our standpoint, therefore, freight rates must be adjudged "excessive," though not necessarily "unfair," whenever they appear to exceed this necessary minimum, because any such excess can only

operate as a discouragement to productive industry, by limiting its profits, either in Britain or in the Dominions or in both, having regard to the existing conditions of world competition which govern prices.

In Appendix C we exhibit a chart showing the fluctuations in mean yearly freight rates since 1902, being the year of the Morgan combine of Atlantic companies. The level lately reached was the highest for 20 years. The shipping journal "Fairplay" (26th December 1912), from which we have borrowed the figures, points out the great variety of causes which are reflected in these fluctuations, and which make it impossible for us to ascertain with any exactitude to what extent the rapid rise in recent years is attributable to the elimination of competition through the growth of monopoly. But it should be borne in mind that the first object of large combines is always the maintenance of freight rates at a high level.

The same journal states, however, that "vessels" "owing to their increased size and better despatch can" "now carry cargo at a much lower rate to leave a profit" "than vessels could do thirty years ago." That is to say, other things being equal the tendency of freight rates should be downwards rather than upwards.

In the same way, other things being equal, the effect of the recent mergers ought to be to reduce freight rates, owing to the saving in the expense of management and elimination of waste, &c., which constitute the economic justification of monopoly.

But if these economies have been effected, it is not clear that the benefit has reached consumers and producers. In some cases, at least, the economic saving appears to have been more or less counterbalanced by an inflation of capital in connection with the process of merger, increasing the amount of revenue, *i.e.*, of earnings, necessary for paying interest or dividends. To effect a merger it has sometimes been necessary to buy out competitors on practically their own terms. The excess of capital required for this purpose has been obtainable by reason of the increased power of a large combine to carry out the avowed policy of exacting the highest rates that the traffic will bear (Cd. 4668, p. 40)—a policy which is opposed to that of Empire development. If desired, we shall be able to furnish one or two striking examples of this inflation of capital due to mergers.

The following extract from the "Financial News" of 30th July 1913 is of interest, as showing the latest position in regard to the tendency of freight rates and the finance of shipping companies.

"During the past few weeks the freight markets have not altered to any material extent. At present, rates are well maintained in most directions, with a general tendency towards slightly higher figures. Owners have got through June much better than was at one time expected, and when July is over there should be a brisk inquiry for tonnage, as arrangements will then be in progress for moving the new crops. In this connection it may be mentioned that the cargo-boat companies are now transferring larger sums to depreciation and reserve than they have hitherto done, so that when the inevitable period of depression ensues they will be in a much better position to deal with circumstances which may then arise. The accounts of 29 of these concerns that have been issued since January last show that, while profits have risen from 1,468,425*l.* to 2,471,641*l.*, the amount set aside has increased from 604,956*l.* to 1,487,721*l.*, and the average dividend from 6·15 to 13·27 per cent."

(b) *Preference to Foreign Interests.*

By the established policy of the shipping conferences an equality of rates is supposed to be maintained from United Kingdom and Continental ports respectively to overseas markets. There always has been a widespread feeling that this equality is in itself an undue discrimination against British trade, because the supremacy of this country in shipbuilding, &c., ought to enable her carrying trade to be conducted more cheaply than that of other countries. But, without going further into that question, we have to point out that there continues to be cases in which the rates are lower from Continental than from British ports, to the manifest detriment of British trade.



We have also to point out that even where the freight rates are nominally equal, class for class, a certain description of goods may be assigned to a cheaper class on the Continent than in Britain, so that the difference in the method of classification sometimes acts as a preference to foreign goods.

In Appendix D we give examples of these two forms of discrimination against foreign trade.

[In this connection we would call special attention to Numbers 3, 4, 5 and 6 in Appendix D, which apparently indicate a tendency to counteract the operation of the British preference in Dominion tariffs by means of discriminatory freight rates in favour of foreign goods. In one instance (Appendix D 6) we find British manufacturers apparently asking a Dominion Government to grant a tariff preference for the particular purpose of offsetting the foreigner's undue advantage in respect of freight rates.]

#### (4) *The Remedy Proposed.*

We agree with the Royal Commission of 1909 that the conditions produced by the growth of the conference system are such as to render it desirable that those interested should have the opportunity of appeal to some official body. The mere existence of this opportunity, even were it seldom exercised, would tend to act as a check upon the conferences, and to give a confidence now lacking to shippers, manufacturers, and producers and consumers generally, who now feel that they are powerless to protect their own interests in the face of these modern combinations of shipowners. But the British Board of Trade, as we have pointed out, is not the right body for this purpose in the British Empire, because it is not inter-State. We submit that our proposed Empire Board would be in a stronger position than the British Board of Trade, because (a) it would be open to representatives of all the principal Governments in the Empire, instead of representing one Government only; and (b) if entrusted, as we have suggested, with control of the mail contracts of the Empire, and having a certain fund conditionally available for the improvement of shipping services generally, it would possess a leverage lacking to the British Board of Trade, and more weight would thus attach to any public reports it might make on matters in dispute between shipping companies and the public.

As compared with the proposals of 1909 our proposal has the further merit that (c) producers and consumers in any of the countries would have the opportunity of moving their own Government, through the ordinary departmental channels, to bring their own view of any grievance to the attention of the board instead of depending on the initiative of merchants or others whose interests might not be identical or equally cogent. We now suggest that it would suffice, for a beginning at least, if in connection with questions of freight conditions the proposed board had the same duties of inquiry and report as were recommended by the Minority in 1909 (see above, p. 5), except that the reports and returns of the board should be laid before the Dominion Parliaments concerned as well as the British Parliament. Such a duty would fall within the scope of the functions we have already proposed that this board should exercise, and which included the following :—

"(6) To watch and report upon the interests of trade within the Empire as affected by maritime communication; and in case of injurious developments to take or recommend suitable action."

"(7) To report at the request of any participant Government upon any question concerning the operation from any standpoint of public interests, of any of the maritime services of the Empire, *i.e.*, steamship services, whether mail or cargo, and telegraph services whether cable or wireless." (Cd. 6517, p. 97.)

Relying, to begin with, upon the efficacy of publicity of the board's reports, we do not suggest that the board should be empowered to fix rates or otherwise dictate to the shipping companies. But we cannot concur with the opinion expressed by the majority in 1909 that (p. 83) "the grant of such power could only be justified if the State were prepared to grant

"shipping conferences statutory monopolies or "guarantee their profits." In our view the need and justification of State intervention consists in the circumstance of virtual monopoly existing (whether statutory or not) such as induced the British Government to assume control over railway rates.

#### PART II.—CANAL DUES.

(1) *Suez Canal.*—So far we have considered the question of freight conditions in relation only to the proposed board as a tribunal of appeal in case of dispute between the public and the shipping companies, particularly with a view to meeting the dangers inherent in the tendency to monopoly.

The other aspect of the proposed board is that of an inter-State body charged with the administration of a certain fund for (primarily) the improvement of the maritime communications of the Empire (Cd. 6517, p. 97, Nos. (1) to (5)). We now desire to suggest that one object to which such a fund might be usefully applied would be the relief, under certain conditions, of British shipping from the Suez Canal dues, and possibly, hereafter, the Panama Canal dues.

The case of the Suez Canal is exceptional, inasmuch as the British Government is a large shareholder in the canal company, and in that capacity draws a dividend at the rate of above 33 per cent. on the purchase money. The amount thus received by the British Government last year was £318,685*l.* It has long been felt that the tolls which produce these huge dividends are obviously excessive, and that in justice to those British subjects who directly or indirectly pay these tolls the British Government ought to apply part of the dividend to reduction or refund of the tolls on British shipping. This reform could be accomplished by transferring to the Empire Board and Fund whatever portion of the revenue from the canal shares the British Parliament might determine.

The past history of the question may be summarised as follows :—

At the Imperial Conference of 1907, it was strongly urged by Sir Joseph Ward, as Premier of New Zealand, that something should be done to remove or reduce the tolls on British shipping using the canal, in order that this shorter route might become available to some of the vessels, especially cargo steamers, which use the longer and more dangerous routes, *via* Cape Horn or the Cape of Good Hope, for the sake of economy. He suggested State repayment of tolls, to which he said that New Zealand would willingly contribute. The idea was supported by Mr. Deakin, as Premier of Australia, and was approved in principle by Mr. Asquith, as Chancellor of the Exchequer, and Mr. Lloyd George, as President of the Board of Trade.

The question continued to be urged on the attention of the British Government by the Australian Government.

At the Imperial Conference of 1911, a resolution was brought forward by the Australian Premier (Mr. Fisher), and was eventually passed in the following form :—

"That this Conference is of opinion that the dues levied upon shipping for using the Suez Canal constitute a heavy charge and tend to retard the trade within the Empire, and with other countries, and invites the Government of the United Kingdom to continue to use their influence for the purpose of obtaining a substantial reduction of the present charges." (No. XXVI. of 1911.)

In moving his resolution Mr. Fisher mentioned that in the case of one large shipping company the amount paid in tolls for the year exceeded the amount paid in wages, and that in the case of the vessels performing the mail contract the amount paid in tolls exceeded the mail subsidy.

In the course of the discussion it was pointed out, on behalf of the Foreign Office, that the British Government, although a large shareholder in the canal, had only about one-tenth of the representation on the board, and thus could not force substantial reductions as desired.

The following table shows the progress of reduction in the rate of transit dues per ton up to the present time :—



	Rate per Ton in Francs.
1869 - - - - -	10
1874 - - - - -	13
1877 - - - - -	12.50
1879 - - - - -	12
1881 - - - - -	11.50
1882 - - - - -	11
1883 - - - - -	10.50
1884 - - - - -	10
1885 - - - - -	9.50
1893 - - - - -	9
1903 - - - - -	8.50
1906 - - - - -	7.75
1911 - - - - -	7.25
1912 - - - - -	6.75
1913 - - - - -	6.25

Our suggestion is that an allowance on account of tolls might be granted out of the Empire Fund to British ships, the amount being based, not on tonnage, but on goods actually carried. We would limit the arrangement to specified classes of goods, *bonâ fide* the produce or manufacture of the Empire and destined *bonâ fide* for consumption within the Empire, and perishable food-stuffs in particular.

A further condition should be that the rates of freight on the specified classes of goods should be approved by the Empire Development Board, and should not be increased without its sanction. In this way we feel that encouragement might be afforded to the production of food in Australasia, *e.g.*, the butter industry, which has to meet the severe competition of Danish producers as well as of margarine and such products in the British market.

(2) *Panama Canal*.—It is not yet clear what will be the outcome of the present dispute with the United States regarding tolls on the Panama Canal. But in view of the possibility of subsidised foreign competition in the carrying trade by this new route, we suggest that the Empire would be in a stronger position if there were brought into existence a board and fund of the kind we propose, which could organise counter-vailing measures in case of discrimination against British trade.

#### (ii) CHARGES ON EMIGRANTS.

The Committee report that in the time available they have been unable to reach the question of charges on emigrants. Any observations which they might desire to make on this subject would have to be submitted at a later date.

#### (iii) SPEED OF STEAMSHIP SERVICES AND COST OF ACCELERATION.

We take it as axiomatic that the interests of Empire development demand the speediest practicable transport of mails and passengers between the various countries of the Empire, and especially between the Dominions and Britain. From this standpoint there is no ocean mail service connecting Britain and the Dominions which ought not to be accelerated if an Empire Fund were available for such purposes.

If, however, we confine our attention to services which are palpably behind the felt needs of the present time, we would single out the following:—

- (1) Britain-Australasia, including Canada-Australasia.
- (2) West Indian services, including:—
  - (a) Britain-West Indies.
  - (b) West Indies *inter se*.
  - (c) West Indies-Canada.

##### (1) *Britain-Australasia*.

It has long been felt that the existing interval of 34 days between Britain and New Zealand (*via* the foreign San Francisco route), and 30 days between London and Melbourne requires to be shortened.

In relation to Empire development, the fact that the journey out and back takes practically 3 months impedes British investment in Australasian enterprises. The number of British capitalists visiting Canada with a view of taking part in the development of the country

is much greater than the number visiting Australia or New Zealand, partly owing to the difference in the length of absence which is involved.

From the political standpoint, again, the length of journey is an obstacle to the now accepted policy of frequent consultation between Ministers of the respective Governments. The recent developments of the naval policies of the Canadian and Australasian Dominions are such as to emphasise the need of a fast mail and passenger service on the Pacific Ocean, in order to facilitate co-operation between these Governments.

Since the discussion of the All-Red project at the Imperial Conference in 1911, something has been done by the Canadian Government to improve the Atlantic service and, in conjunction with New Zealand, to improve the Pacific service.

But in our opinion the actual present needs of the situation will not be satisfied until New Zealand is brought by this All-Red route within three weeks of Britain as advocated by the Premier of New Zealand in 1911, with corresponding reductions of the intervals between Australasia and Canada and between Canada and Britain.

The time-table outlined by the Premier of New Zealand was as follows:—

Liverpool to Halifax or Quebec	
about - - - - -	4 days.
Halifax or Quebec to Vancouver	4 days.
Vancouver to Wellington or Auckland - - - - -	12 to 13 days
	20 to 21 days
Wellington to Sydney - - - - -	3 days
	23 to 24 days

As to the probable cost, the confidential information obtained in the course of inquiries by a special Committee of the British Cabinet after the Conference can doubtless be procured by the Royal Commission. Unofficial estimates placed the subsidy at various amounts up to 1,000,000*l.* a year. Such a sum, if necessary, would not in our opinion be too much to pay for the commercial and political advantages of having New Zealand brought within 21 days of Britain and Australia (Sydney) within 24 days, with the proportionate reduction of time to and from the intermediate countries.

#### (2) *West Indian Services*.

For many years past there has been an increasing tendency for the principal West Indian Colony, Jamaica, to look to the United States rather than the Empire for its economic development. The attraction of the United States as a great market for tropical products—formerly sugar, but nowadays principally fruit—has been stimulated by the enterprise of American capitalists in developing the agricultural resources of Jamaica, and by the yearly stream of American tourists.

The most important attempt to check this tendency to rely on a foreign country has been the action of the Canadian Government in giving a preference to West Indian products (particularly sugar) which has now been made reciprocal, and establishing direct steamship communication with Canadian ports on the Atlantic. But Jamaica has stood out of this arrangement for fear of what the United States might do—a most humiliating position for the Colony and the Empire.

This Imperial policy of Canada has been impeded all along by the want of cohesion between the West Indian Colonies, which may be traced partly to the lack of rapid inter-communication. In particular, Jamaica is cut off from the Colonies to the south by an interval of 9 or 10 days or more.

The American export trade to the West Indian Colonies tends to displace the British export trade.

It is therefore, desirable that all practicable measures should be taken to maintain and expand the Empire trade, and to facilitate personal intercourse between the West Indies and other parts of the Empire, especially Britain and Canada.

For this purpose some of the steamship communications require to be accelerated, being plainly behind the times.

(a) Britain—West Indies.

The two main routes of direct communication between Britain and the West Indies are from Southampton to Barbados and from Bristol to Jamaica. There are, however, various other services from British ports.

The Southampton—Barbados route is that of the historic mail service of the Royal Mail Steam Packet Company, which is on a fortnightly basis.

But though this service eventually reaches Jamaica the time occupied is so long (over three weeks) that, we understand, the mails are generally sent *via* the United States.

From 1900 to 1911 a contract was held by the Imperial Direct West India service, which was established in 1900 as the result of negotiations between the late Sir Alfred Jones and Mr. Chamberlain, with the object of providing Jamaica with a direct fruit, passenger, and mail service. Mr. Chamberlain wished to open a market in Britain for Jamaican fruit in order to render that Colony less dependent on the United States. This service was fortnightly, and performed the passage from Bristol to Kingston in 10 to 12 days, calling at Bermuda once a month. The contract lapsed in 1911, and the service was suspended, the Colony being unwilling to renew their share of the subsidy (which was 40,000*l.* divided equally between the Imperial and Jamaican Governments), believing that the Imperial Government would not continue theirs. The reluctance of the Colony was also partly due to resentment at the private arrangements whereby the United Fruit Company of the United States of America had secured practical control of the loading, and partly to a feeling that the banana trade to Britain was now sufficiently well established to render a subsidy unnecessary. This latter belief was justified by the event, since a weekly service of about equal speed is now maintained by Elders and Fyfe, Limited, a company which is said to be mainly owned by the United Fruit Company of the United States of America. But as compared with the previous service, the present one seems to be inferior in the following respects, of Imperial importance:—

- (1) It is virtually under foreign control.
- (2) The speed has ceased to be adequate for the carriage of mails, which now go by a foreign route owing to the more rapid improvement of American communications.
- (3) The boats now carry fruit only, returning practically empty, thus doing nothing directly to develop the British export trade.
- (4) The monthly call at Bermuda having been dropped, that British Colony is now isolated, being connected only *via* the United States of America.

The mail contract with the Royal Mail Steam Packet Company lapsed in 1905, after which the mails were carried on a poundage basis. It was renewed in 1911, after much dispute as to the amount of subsidy, which was finally fixed at 88,000*l.* The speed from Britain to Barbados, which is still the first port of call, is no greater than was stipulated in the contract of 1890, *viz.*, 13 knots, it having been raised from 11½ knots in 1880 to 12 knots in 1885. For practical purposes there has been no acceleration for 25 years, since we find that in 1888, James Anthony Froude, who has left the particulars on record (*vide* "The English in the West Indies"), made the passage by R.M.S. "Moselle" in 276 hours, which seems to be no longer than the time contemplated in the current timetables published by the Royal Mail Steam Packet Company.

We suggest that the acceleration of this service by 2 or 3 knots would do much to encourage trade and intercourse between the Mother Country and the southern West Indian Colonies.

We further suggest that the former Imperial Direct Service with Jamaica should be restored in some form or other, and accelerated sufficiently to make this route as quick as any foreign route for mails and passengers. Henceforth, however, this question has to be considered

in connection with the Panama Canal. Presumably various services will be established *via* the canal between Britain and the countries bordering the North and South Pacific. One of these services might perhaps be utilised to connect Jamaica with Britain, preferably *via* Bermuda.

As to probable cost, we do not know how any reliable estimate can be reached except by calling for tenders.

(b) West Indies *inter se*.

The mail and passenger communication between Jamaica and the southern colonies is at least 100 years behind the times.

For example, in 1801, General Nugent, going out as Governor of Jamaica, was conveyed by H.M. frigate "Ambuscade" from Bridgetown (Barbados) to Port Royal (Kingston, Jamaica) in just nine days. At present the mail service takes ten days between the same two capitals.

The present mail service is circuitous, *via* a number of foreign ports on the Spanish main. We suggest that a comprehensive inter-Colonial service ought to be established, affording direct communication one way between Jamaica and the southern islands. The distance direct is about 1,000 miles.

(c) West Indies—Canada.

That the service carried on by Messrs. Pickford and Black between Canadian and West Indian ports (excluding Jamaica) has not been adequate to existing needs is shown by the attempts of the Canadian Government to improve it. On this point the Royal Commission can doubtless get the fullest information from one of their number, Hon. George E. Foster, the Minister responsible.

A proposal was reported to have been made in 1912 by an influential Canadian-West Indian syndicate to establish a weekly service of 15-knot 5,000-ton steamers, carrying 100 saloon passengers, between Jamaica and Halifax and St. John, connecting there with trans-Atlantic steamers, and with a subsidiary coastal service in Jamaica, for a subsidy of 60,000*l.* a year for 10 years.

Perhaps, however, Halifax and St. John are too remote from the most populous centres of Canada to form convenient points of departure for the majority of Canadians who might visit the West Indies. Boston and New York would be more convenient to them. Either, therefore, the Canadian boats would require to call at one of these foreign ports, or else the Canadian service would be practically confined to cargo, as hitherto, in which case speed is of secondary importance.

(iv) TELEGRAPH COMMUNICATIONS: DEFICIENCIES.

In our view the telegraph communications of the Empire should continue to be regarded as defective until such time as it is possible for the public in Britain and the Dominions to telegraph to any point within the collective territory with the same facility as they can now telegraph between any two points in any one of the countries.

Just as there is now uniform penny postage throughout the collective territory, so there should be ultimately a uniform and cheap telegraph rate. Not until this condition is attained will the full use of telegraphy be realised as an agency of Empire development, and of political union. But, since under present conditions that ideal system would be financially onerous to the Governments concerned, it should be approached by gradual stages only, allowing time for the public to become more familiar with this method of communication, while keeping pace with the technical improvements of telegraphy.

The reductions which have been made in cable rates from time to time carry us a little way, but only a little way, towards the goal, and have failed to satisfy the already existing demand for a more popular service.

Meanwhile, the passing of the North Atlantic cables into practically foreign control has strengthened the feeling of urgency in regard to the whole question of creating a complete, all-British, Empire cable system.

For many years one of the arguments used in support of that policy was that, if an Empire system were not speedily created, we might presently find that foreign countries were securing to themselves the strategic and commercial advantages which we were neglecting. A reference to the accompanying map\* will show at once how far this apprehension was justified. Germany, France, and Holland have already secured many of the lines they require and are continuing the policy, which they have consistently pursued, of encouraging the enterprise of their own people in this field. There has been no secret about the determination of foreign interests, not merely to secure lines independent of the British, but to secure to themselves the British lines also, whenever possible. The whole of the cables between the United Kingdom, Newfoundland, and Canada are now controlled by foreign interests.

A scheme for the development of an adequate Empire system of cables was published and advocated by the Ottawa Board of Trade in 1907, the estimated cost being placed at a maximum of 5,000,000*l.* (see Pamphlet† *herewith*). This scheme, which was based on the principle of an All-British chain of State-owned cables encircling the globe, was designed to enable messages between any two points to be forwarded either eastwards or westwards, thus affording some security against interruptions through accident or in war.

At present the All-British chain, reckoning both company and State-owned cables, is defective in so far as the West Indies are not on any link, and the North Atlantic link between Canada and Britain has virtually ceased to be British.

Cables still required, therefore, to complete the British chain are from Bathurst to Barbados, Barbados to Bermuda (which is already connected by cable with Halifax, N.S.), and an Imperial cable from Halifax to Newfoundland and Britain, which should be laid as far north as possible.

The cost would probably be about 1,500,000*l.*

At the points above specified should be established suitable wireless stations, as feeders. But we share the view that wireless telegraphy is not likely to supersede the need of cables for many years to come.

The laying of these cables would create a route from Egypt and the East to the United Kingdom, Britain, and Canada which would be less liable than existing routes to interruption in war, as it would eliminate the danger zone through the Mediterranean to Gibraltar, and along the coast of Spain, Portugal, and France, and the Channel, and in the West Indies eliminate the present landings of cable on foreign territory. It will also give an alternative British route to the Cape, and thence to Australia. The difference of time between the Cape and Britain would permit the flow of traffic across the Atlantic during hours when that route is most free of English and Canadian traffic. It is possible that by adjustment of rates the new lines could be made self-supporting if desired.

[The scheme for establishing an imperial chain of wireless stations, which is now engaging the attention of the Imperial British Government, may also be taken as indicating an existing deficiency, and is eminently appropriate to the purpose of our proposed Empire Board and Fund. We are of opinion that, had such a board been in existence at the outset, the peculiar troubles which have attended this important scheme would all have been avoided.

In support of the above statements the following papers are submitted herewith:—

- (1) Ottawa Board of Trade Papers—an Address to H.E. Lord Grey on the All-Red Line.
- (2) Map.
- (3) Extract from "The Times" (April 25th, 1913), and
- (4) "Canadian Gazette" (April 17th), showing that both the British and Canadian Governments had recognised the need of State control over Atlantic cable rates.

- (5) Statements setting forth some subsidy payments and guarantees by various Governments.]

BEN. H. MORGAN,  
Chairman, Empire Trade and  
Industry Committee,  
Royal Colonial Institute.

JAMES R. BOOSÉ, Secretary.  
19th July 1913.

## APPENDICES

### APPENDIX A.

[The subjoined figures have been prepared from figures given in the "Stock Exchange Year-Book," "Stock Exchange Official Intelligence," and "Fair-play"; and while it may be slightly out of date in certain details, the Committee believe it to be substantially correct, but they cannot hold themselves responsible in any way for its accuracy.]

Recent amalgamations of British shipping lines, and list of principal foreign shipping companies:—

Amalgamations.	Capital.	Date
	£	
INTERNATIONAL MARINE COMPANY.	120,000,000	1902
Oceanic Steam Navigation Company, Ltd., including, with Shaw Savill and Albion, Ltd., ownership of steamship line to New Zealand.		
Atlantic Transport Company, Ltd.		
National Steamship Company, Ltd.		
International Navigation Company, Ltd.		
Mississippi and Dominion Steamship Company, Ltd.		
British and North Atlantic Steam Navigation Company, Ltd.		
Société Anonyme de Navigation Belge-Américaine (Red Star Line), and the shipping interests of		
Frederick Leyland & Co., Ltd.		
Ismay Imray & Co.		
Richard Mills & Co.		

this combine controlling a fleet of 126 vessels, with a tonnage of 1,181,125 tons.

Since the report of the Commission in 1909, the progress of amalgamation has been greatly accelerated. During the last few years the following British shipping mergers have taken place:—

Amalgamations.	Capital.	Date.
	£	
CUNARD STEAMSHIP COMPANY, LTD.	2,500,000	1912
Anchor Line (Henderson Bros.), Ltd.		
ELDER DEMPSTER & CO., LTD.	2,910,000	1910
British and African Steam Navigation Company, Ltd.		
Elder Line, Ltd.		
Imperial Direct West India Mail Company, Ltd.; and a half share of the		
Union Castle Steamship Company, Ltd.		
(See Royal Mail Steam Packet Company, Ltd., below).		

\* Not reproduced.

† Not reprinted.

and also interests in the Cunard, Glen and the African Steamship Company. This combine directly owns 112 vessels, with a gross tonnage of 325,983 tons.

Amalgamations.	Capital.	Date.
	£	
LAMPORT AND HOLT, LTD. - Lamport and Holt. Liverpool, Brazil, and River Plate Steam Navigation Com- pany, Ltd.	1,000,000	1911

Fleet 29 vessels, totalling 154,950 tons. (Four-fifths of the shares of Lamport and Holt, Ltd., are held by the Royal Mail Steam Packet Company, Ltd., and Messrs. Elder Dempster & Co., Ltd.)

Amalgamation.	Capital.	Date.
	£	
PENINSULAR AND ORIENTAL STEAMSHIP COMPANY, LTD. Blue Anchor Line.	3,500,000	1910

In this fleet there are 71 vessels, with a tonnage of 542,091 tons.

Amalgamations.	Capital.	Date.
	£	
ROYAL MAIL STEAM PACKET COMPANY, LTD. Pacific Steam Navigation Com- pany. Nelson Steam Navigation Com- pany, Ltd.; and a half share of the Union Castle Mail Steamship Company, Ltd.	6,500,000	1912

The Royal Mail fleet consists of 47 steamers, aggregating 235,365 tons, and the fleets of other companies closely affiliated with their management represent 1,014,004 tons.

Amalgamations.	Capital.
FURNESS, WITHEY & CO., LTD. British Maritime Trust, Ltd. Norfolk and North American Steam- ship Company, Ltd. Argentine Cargo Line, Ltd. Chesapeake and Ohio Steamship Com- pany, Ltd. London Welsh Steamship Company, Ltd. The British and Argentine Steam Navigation Company, Ltd. Neptune Steam Navigation Company, Ltd. White Diamond Steamship Company, Ltd.; and interests in Houlder Bros. & Co., Ltd. Gulf Line.	£3,500,000

Principal Foreign Shipping Companies.

Line.	Capital.	Office.
Hamburg-Amerika -	M.125,000,000	Hamburg
Norddeutscher Lloyd -	M.125,000,000	Bremen
Cie. Ge. Transatlantique -	F.39,000,000	Paris
Messageries Maritimes -	F.45,000,000	Marseilles
Nippon Yusen Kaisha -	Yen.22,000,000	Tokio
Hansa -	M.25,000,000	Bremen
Austrian Lloyd, and -	Kr.28,800,000	Vienna
The International Mer- cantile Marine Com- pany of New Jersey.	\$120,000,000	New Jersey

APPENDIX B.

EXTRACTS from recent Canadian and British news-  
papers illustrating present dissatisfaction with  
freight conditions, together with Extract from the  
reports of H.M. Trade Commissioners for Canada  
on the subject of high freight rates.

"Canada" newspaper, 5th July 1913:—

"Ocean Rates. Permanent Commission Pro-  
posed. At the request of the Canadian Manu-  
facturers' Association the Ottawa Board of Trade  
has passed the following resolution and forwarded  
it to the Hon. George H. Perley, Acting Minister  
of Trade and Commerce: 'That the Board of  
Trade of the City of Ottawa urge upon the  
Government the immediate appointment of a  
Commission for the purpose of investigating  
the excessive increases in Ocean Rates, both  
import and export, and that action be taken  
looking toward an International Conference  
composed of representatives of all maritime  
nations concerned, with a view to establishing  
a permanent commission with power to enquire  
into such matters, and determine what action  
is necessary to overcome combinations and  
arrangements between steamship lines to unduly  
enhance the rates which apparently now exist.'"

"Commercial Intelligence," London, 25th June  
1913:—

Commenting upon the above resolution this  
paper, which is termed the British Manufacturers'  
Export Journal, says:—"The enquiry to be made  
by the Empire Trade Commission is, apparently,  
not regarded as adequate by the Canadian  
traders, but the Government is not likely to  
take any action until the Commission has con-  
sidered the question. That any international  
action is possible we doubt, since British  
and foreign interests in the matter are not  
altogether in harmony; but there is urgent  
need of united action within the Empire,  
and the agitation in Canada may help to rouse  
in Government circles a more serious view of the  
position than, in this country at any rate, they  
are inclined to take at present."

"The Monetary Times," Toronto, 7th June 1913:—

"The question of advances in ocean freight  
rates, both import and export, has again been  
discussed by the Montreal Board of Trade. It  
was decided to call the attention of the Govern-  
ment to the matter, with a view of learning  
whether Great Britain and the other maritime  
nations could be induced to take joint action for  
the control of rates. As a preliminary step the  
transportation bureau committee of the Board  
recommended that the Dominion Government  
should be asked to appoint a commission of inquiry  
with a view to arriving at all the facts in connec-  
tion with the advances in rates that have taken  
place within the last few years."

"The question of ocean rates arises periodically.  
It is alleged, and generally believed, that they  
are regulated by combination. The question was  
investigated to some extent by Mr. Richard Grigg,  
Chief Canadian Trade Commissioner, when he held  
the position of British Trade Commissioner in  
Canada. In a report to the Imperial Govern-  
ment in 1907, he said: 'It must be a matter  
of opinion as to whether rates of carriage are  
higher than the service warrants, and if they  
are it is perhaps easier to state the fact than  
to formulate a remedy. Assuming them to be  
so, it would appear that part of the preference  
designed to encourage the imports of British  
manufacture goes into the pockets of steam-  
ship owners, and thereby to some extent defeats  
the intention of the preference by checking the  
imports of British goods.'"

"The Monetary Times" goes on to say:

The subject of the control of ocean freight rates  
has frequently been brought to their attention  
(i.e., the Government), but little progress has been  
made with a view to an unbiased investigation.  
Meantime shippers pass sheafs of resolutions,  
and the shipping companies mind their own  
business."

H.M. Trade Commissioner for Canada (Mr. Richard Grigg), in the course of his report on the trade of the Dominion for the period from 1st July 1906 to 31st March 1910 (Cd. 5591), dealing with import freight rates, states (page 53 *et seq*):—

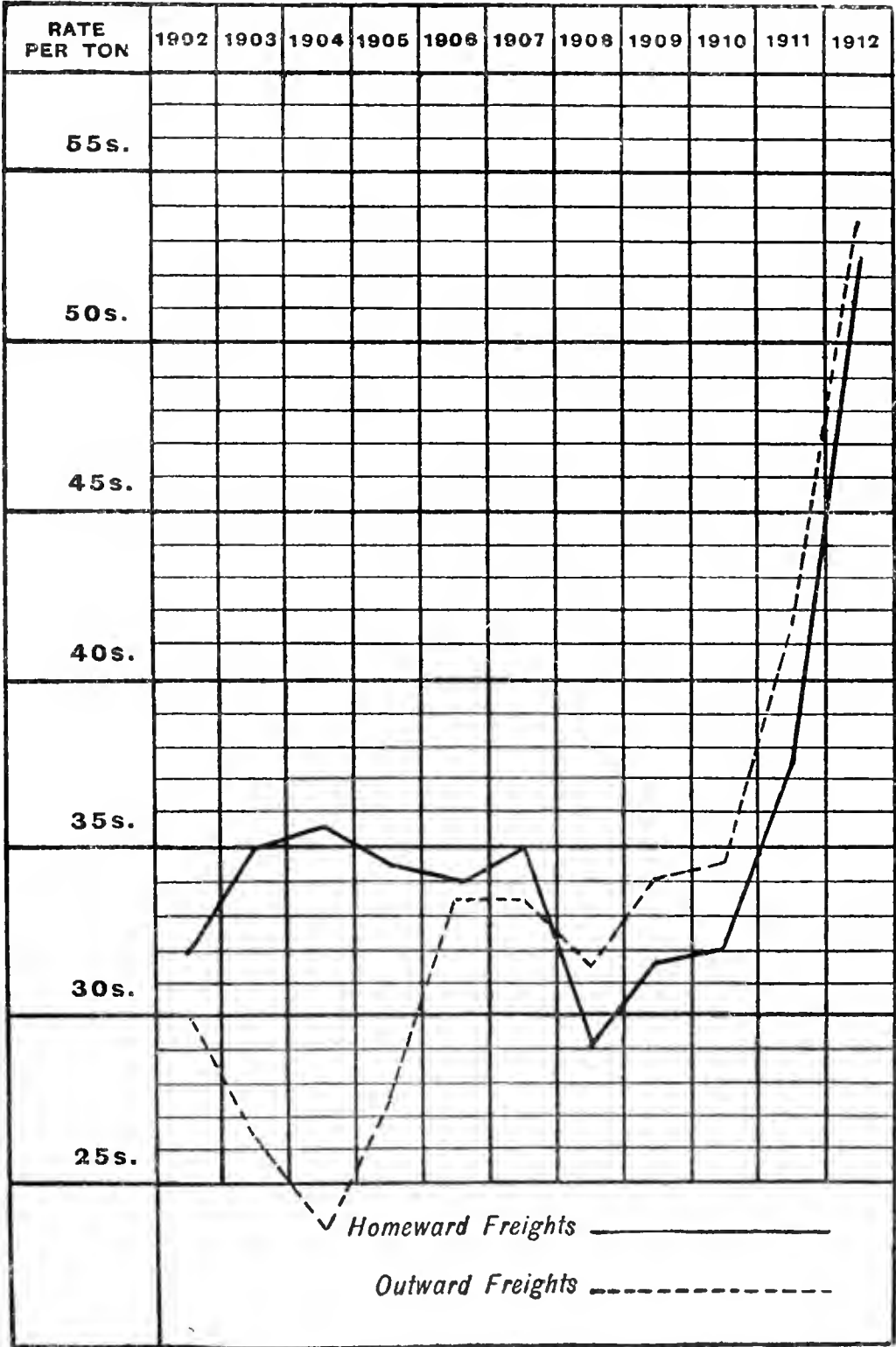
“Within the last few years considerable attention has been attracted by the very noticeable increase in shipping freights on consignments from the United Kingdom to Canada.”

While the present Commissioner, Mr. A. Hamilton Wickes, in his report for 1912 (Cd. 6870) states:—

“Freights between Europe and Canada in all lines of goods have shown a constant tendency to advance during the past 10 years. On the other hand, railway rates from American manufacturing centres to Canada have hardly moved.” The Trade Commissioner goes on to say, “The situation would appear to amount to

“this: That shipping companies are as much in business to make a profit as the manufacturer, merchant, or other trader.” And further on, “It is a fact, however, that although common carriers, in much the same sense as railway companies, they have so far been able to avoid the obligations relating to freight imposed upon the latter.” And later on he states, “It would appear that freight has had, and is having, a direct effect on the imports of the latter class of goods (*i.e.*, manufactures of metals, machines and machinery) into the Dominion.” And finally winds up by stating, with reference to the small percentage of trade done by the United Kingdom in simple manufactures of metals, that “but the difference in freight rates from the United Kingdom may also be taken to be a contributive factor.”

APPENDIX C.



The figures given in the Rate column are arrived at thus: By the increase in Freight, goods bearing a rate of 32s. per ton in 1902 would in 1912 have paid 52s. 6d. per ton.

*Typical Increases of Freight Rates.*

H.M. Trade Commissioner for Canada, 1912 Report.  
(Cd. 6870, p. 26.)

	1910.	1913.
	Per ton.	Per ton.
Cutlery: United Kingdom to Montreal.	27s. 6d. m.	35s. 0d. m.
Cutlery: Liverpool to Toronto (car load lots).	25s. 0d. m.	35s. 0d. m.
Metal Nuts: United Kingdom to Montreal	12s. 6d. wt.	17s. 6d. wt.
Iron Girders - - -	12s. 6d. wt.	16s. 3d. wt.

"Daily Mail" Year Book, 1913.

Bulk Cargoes.	Oct. 1911.	Oct. 1912.
	Per ton.	Per ton.
Azoff to Rotterdam -	10s. 3d.	20s. 0d.
Savannah to Liverpool	33s. 6d.	60s. 0d.
Odessa to London or Rotterdam.	10s. 3d.	18s. 0d.
Cardiff to Genoa - - -	9s. 3d.	13s. 0d.

## APPENDIX D.—1 to 6.

*Instances of Lower Freights from Continental than from United Kingdom Ports to Overseas.*

1. A British Manufacturers' Association states:—

I have pleasure in giving you the following note of freight on linen goods:—

	Per 40 cubic ft.
Belfast to New York (Lusitania)	52s. 3d.
(Mauretania)	
"  White Star	49s. 6d.
Anchor	
Cumard	
Belfast to Cape Town from Southampton.	46s. 9d.
Belfast to Buenos Aires - - -	79s. 6d.
Antwerp to New York - - - -	*29s. 0d.

2. The following figures are supplied by one of the largest British electrical manufacturers:—

*Electrical Material.*—Glass, W.T. tubes, earthenware pots, sal-ammoniac, metal filament lamps, common porcelain, machinery, woodenware, lead shot, zinc rods, electrical fittings, accumulators:—

*Average of Freight Rates on above:—*

Goods from.	As at April, 1913.	Relative.
	Per ton mm. or weight.	Per cent.
Hamburg to Bombay -	21s. 6d.	5
London to Bombay -	24s. 11d.	5
Hamburg to Sydney -	33s. 2d.	10
London to Sydney -	37s. 3d.	5

3. His Majesty's Trade Commissioner for New Zealand states in his Report for 1911:—

"A further point to be considered is that of outward freights. Instances can be given without end to show how German and American goods are brought out *via* British ports in British ships at lower freight rates than similar British goods from those same British ports. The shipping companies can of course plead that their only concern is to secure all the freight they can, and by underquoting foreign competitors prevent them from putting more foreign boats on to those runs. They would perhaps

argue further that in so doing in the long run they are benefiting British manufacturers. At the same time they must realise that very considerable harm is being done by this policy. Not only is the British manufacturer handicapped in competition, but he is in some cases forced out of the field—his goods being, as a rule, more expensive owing to higher quality, and the additional higher cost of transport making it impossible to market the goods. A special instance is agricultural implements, where British makers in the United Kingdom find it difficult, if not impossible, to compete with America and Canada. But apart from this the impression given in the Dominion must be taken into account. A very considerable impetus has been given to British manufacture by the levy of higher tariff rates on non-British goods. At the same time a diametrically opposite policy is being carried out by an important section of the British community: the same goods which the Dominion is trying to keep out by higher duties in the interests of the United Kingdom are being pushed in by our shipowners through lower freights, and the deliberate policy of the Dominion is being frustrated."

4. H.M. Trade Commissioner for Canada (Mr. Richard Grigg), in his report on Canadian trade, 1st July 1906 to 31st March 1910 (Cd. 5591), states (p. 44):—

"Attention may here be directed to the fact that the whole position of trade is intimately dependent upon shipping facilities. No amount of preferential duty, and no alacrity on the part of the British merchant, can avail to hold the Canadian market if the conditions and cost of shipment are such as to militate against the supply of the market from overseas. It is therefore necessary for all who are interested on both sides of the Atlantic in the maintenance and extension of British trade, to see to it that ocean freight rates are kept at a point which will not imperil the future importation of British goods. At various points in the present report, and especially on p. 53, this matter comes under general discussion, but it needs also to be emphasised in this summary of the general tendency and movement of British and American competition." Again (p. 54)—"The subject is one of vital interest to the exporters of British goods, inasmuch as the rise in freights threatens to reach a point which, in the opinion of many well-informed people in Canadian commercial circles, may affect the benefits accruing to British traders from the preferential tariff."

5. H.M. Trade Commissioner for Canada, Mr. A. Hamilton Wickes (Cd. 6870), states:—

"It is not unusual to hear a well-informed business man state that he is 'confident that the preferential tariff is being utilised by the ocean transport companies to squeeze higher freight out of the goods from the United Kingdom,' thereby cancelling, to a great extent, the concession under the tariff extended to British trade by the Canadian Government. I believe this view to be an illusion. In any case, as far as it might be applied to shipments from countries of continental Europe, the trade is so small in volume that even if it had been the practice to give a materially lower preferential rate for such shipments, it has not, so far, had much effect. Still, quite recently, a New York importer, in a letter dated 20th January 1913, addressed to the Chairman of the Committee of the House of Representatives sitting at Washington on the 'so-called Shipping Combine,' stated as follows:—

"Linens from Belfast by any or all of the Conference Lines to New York are charged a freight (with 10 per cent. primage) of 49s. 6d. per ton, while similar goods from France, *via* Havre and Southampton, by one of the shipping companies in the Conference, were carried to New York at 26s. 6d. per ton."

6. The Manchester Association of Importers and Exporters, in its report for year ended February 1913, states:—

\* See 5, in next column.



"The attention of the High Commissioner for Australia in London was called to the more favourable facilities for transportation granted to Continental competitors, and more especially to the exceptional facilities afforded in connection with the export of wire and wire goods from the Continent in competition with the United Kingdom. It was pointed out that the effect of a Continental manufacturer having, say, 2s. 6d. per ton cheaper steamer freight to pay, was that he might be able to cut out the British manufacturer without giving the whole of the 2s. 6d. to the buyer. Cases have been laid before the Association where the British manufacturer has lost an order by less than the difference in the rate of freight. It was essential, therefore, that a preference should be given to British wire and wire goods which were admitted into Australia upon the 'Free List,' and that the preference

of 5 per cent. granted to barbed wire of British manufacture should be increased. The Comptroller-General (Department of Trade and Customs, Melbourne), to whom the matter was relegated, promised to give full consideration to these recommendations when the tariff was under revision; but when the Tariff Amendment Bill was subsequently introduced into the Australian House of Representatives no amended provisions for wire goods were made. The efforts of the Association will not be relaxed, and it is hoped that eventually British exporters of these commodities will be placed on a sounder footing."

BEN. H. MORGAN,  
Chairman, Empire Trade and  
Industry Committee,  
Royal Colonial Institute.

JAMES R. BOOSÉ, Secretary.  
19th July 1913.

#### IV.—NATURAL RESOURCES.

##### Correspondence with the British Cotton Growing Association, the Official Secretary, High Commissioner's Office, Commonwealth of Australia, and the Agent-General for Queensland, as to Cotton-Growing in Australia.

- |   |   |   |   |   |   |        |
|---|---|---|---|---|---|--------|
| 1. British Cotton Growing Association, 25th October 1913  | - | - | - | - | - | p. 111 |
| 2. British Cotton Growing Association, 14th November 1913   | - | - | - | - | - | p. 114 |
| 3. Royal Commission to the British Cotton Growing Association, 20th November 1913   | - | - | - | - | - | p. 114 |
| 4. Royal Commission to the Official Secretary, High Commissioner's Office, Commonwealth of Australia, and to the Agent-General for Queensland, 20th November 1913 | - | - | - | - | - | p. 115 |

##### 1.

The British Cotton Growing Association,  
Manchester,

DEAR SIR, 25th October 1913.

WITH reference to the conversation which took place at the Conference held at the Colonel Office on October 22nd, I have much pleasure in informing you that I have discussed the matter with the Executive Committee of this Association and that they are anxious and willing to help as far as possible in proving definitely whether cotton can be grown on a commercial basis in any part of Australia.

2. They were much disturbed at the report I gave them that there was a feeling that Australia had not been fairly treated by this Association, and they wish me to convey to the members of the Commission their assurance that it is their wish and intention, as it always has been, to do their best to help in establishing cotton-growing in all parts of the British Empire where the climate, soil, and other conditions are favourable. In proof of this, I beg to refer you to the extracts from correspondence attached hereto as follows:—

- (1) 1905—January 19th, B.C.G.A. to Mr. J. Bottomley.
- (2) 1905—March 24th, B.C.G.A. to Mr. J. Bottomley.
- (3) 1905—April 27th, B.C.G.A. to Mr. J. Bottomley.
- (4) 1905—May 16th, B.C.G.A. to Mr. J. Bottomley.
- (5) 1906—December 10th, B.C.G.A. to the Agent-General for Queensland.
- (6) 1907—January 28th, Department of Agriculture, Brisbane, to the Agent-General for Queensland.
- (7) 1907—March 14th, B.C.G.A. to the Agent-General for Queensland.

3. It will be evident to you, from a perusal of the above, that although my Council were very doubtful as to the possibility of producing cotton in Australia on a commercial basis, they were willing to help as far as lay in their power, but they considered that it was essential for success that the local Governments should take part in the venture. I hope, however, that the Commission will do their best to remove the unfortunate misunderstandings which have arisen in the past, for I can assure you that it has always been our policy to do all we could to assist any Government

or Government Department which took up cotton-growing seriously. I should also add that we shall be more than pleased if it can be proved that we are wrong in the impression we formed that it was impossible to cultivate cotton on a profitable basis where white labour only is available. You will, however, appreciate the fact that the situation has entirely changed during the last few years and since we made our previous offers to the Queensland Government, and that we are no longer in a position to devote a large sum of money to experimental work. As will be seen from our Annual Report for 1912, a copy of which is enclosed, we have already spent over 170,000*l.* in experimental work, and therefore we can no longer afford to devote any large sum of money towards proving whether cotton can or cannot be grown on a commercial basis in Australia.

4. The Committee wish me to state how very much they appreciate the telegraphic offer from the Queensland Government, dated October 10th,\* which was placed before the meeting of October 22nd. They feel that this is a practical step in the right direction, and they are prepared to do what they can to reciprocate.

5. I must, however, point out that the Committee do not think that a mere offer to guarantee a minimum price is sufficient, for before one would be justified in encouraging any farmer to spend money in growing cotton, it is essential that certain experimental work should be carried out with various types of cotton and in different districts in order to prove which type of cotton is most suitable for each district and which are the best methods of cultivation, and also whether or not the cotton can be produced on a commercial basis—or in other words, whether the farmer can make money out of it.

6. We do not think it necessary to send out an expert to examine the soil or to investigate the climate, or as to whether the local conditions are suitable for cotton. We already have sufficient evidence, and the Imperial Institute can supplement this, proving that cotton of good quality can be produced. What has to be proved is whether cotton can be grown on a commercial basis and this can only be ascertained by actual experiments, and in order to definitely prove the case these experiments should be spread over a period of not less than three years.

Not printed.



7. We therefore urge that in the first instance an agriculturist with good practical knowledge of cotton-growing should be engaged for a period of three years, and he might with advantage be attached to one of the local agricultural departments. If he has had a sound training in tropical agriculture he would probably be useful in connection with sugar and other tropical products than cotton.

8. Secondly, a series of practical experiments should be immediately inaugurated with different types of seed and different methods of cultivation, and in this connection it is not absolutely necessary to have a Government Experimental Station, which are generally rather costly. The evidence required might be more economically obtained by making arrangements with selected farmers to cultivate small experimental plots under the supervision of the cotton expert. This is often done in the United States and in Egypt and it is generally arranged that the farmers should be guaranteed a minimum crop. In any case it is essential that the Government should have absolute control over the seed for further distribution.

9. In the second season those varieties of cotton which had proved to be failures should be eliminated and the experiments with the more satisfactory types should be continued on a more extensive scale. If this work is carried on continuously it is more than probable that in four or five years' time a reliable type of cotton will be thoroughly established in each particular district, and in this connection it must not be forgotten that it by no means follows that a variety of cotton which has proved a success in one district will be equally successful in another district, even though the two districts are closely adjacent. In our opinion, until such experiments have been carried out and the most suitable variety has been firmly established, it is not safe to distribute seed broadcast and to induce farmers to plant cotton. The result would probably mean serious losses to the farmers.

10. We cannot impress on you too strongly that the seed which is used for sowing is *the most vital factor* in connection with cotton-growing. No matter how good the soil or how favourable the climatic conditions, or how excellent the cultivation, unless the seed is sound and well matured and of a variety suitable to the district, the result must be failure. Further than that, it is most dangerous to grow several varieties in one district. Cotton is a very variable plant and is easily self-hybridised, with the result that the crop will become more and more mixed if different varieties are planted in close proximity. There is a further danger when cotton is grown on various farms from various varieties that the different qualities will be mixed together, and the value of the cotton seriously depreciated. For example, if cotton  $1\frac{1}{2}$  inches long, and worth, say, 10d. a lb., is mixed with cotton 1 inch in length and worth, say, 7d. a pound, it is probable that its value will be less than 6½d. per lb. For these reasons we strongly urge that the seed supply should be entirely in the hands of the Government, and that no one should be allowed either to import or to distribute seed except under licence from the Government.

11. Further, the ginning and baling of the cotton should be under Government control, for it is just as dangerous to mix different growths together in the ginning and baling as it is to sow mixed seed. All dirty or stained cotton should be kept separate from clean cotton, and ginned and baled separately. It is also advisable to keep the first, second, and third pickings separate from one another. I have dwelt rather at length on these points, for it cannot be insisted on too often that when one is dealing with high-class cotton these are the only methods by which one can expect to obtain high prices, and I presume that it would be of little use to attempt to grow low-grade cotton in Australia.

12. As regards the type of cotton which should be grown, only experience will enable one to decide definitely which type will be most suitable. I may, however, state at once that there are two types which should not be encouraged, viz., Sea Island and perennial cotton. The market for Sea Island cotton is a very

small one, and is already very fully supplied from the United States and the West Indies. As regards perennial types, they may do well enough on a small scale, but, speaking from experience spread all over the world, in the long run their cultivation is not a profitable one, and the type of cotton, though suitable for mixing with wool, is not suitable for cotton-spinning. There is also the great disadvantage that they give every facility for the spread of cotton pests and diseases. The modern practice is to cultivate all cotton as an annual and to have all the plants destroyed at the end of each season, so as to prevent them acting as a bridge to convey the pests from one season to another. For the same reason "ratooning," or pruning back the plants for a second season's growth should be absolutely forbidden, for there is the additional disadvantage that the fibre deteriorates year by year.

13. The other remaining types are Indian, Egyptian, and American. Indian cotton is short, of very low value, and can therefore be ruled out at once. Egyptian does well under irrigation, but is hardly to be recommended as a rain crop, but it might be worth while trying a few small experiments. As regards American, we should hardly recommend the shorter stapled varieties owing to their low value, though these are undoubtedly the easiest to grow, and are heavy croppers. There are, however, many high-class varieties of Upland cotton, some of which are worth as much as good Egyptian cotton, as, for example, Allen's Improved, Sunflower, Griffin, &c., and as far as we can judge this type would probably be most suitable for the country, though this can only be decided after two or three years' careful experimental work. We generally reckon that it takes from four to five years to thoroughly establish a variety of cotton. It is just possible that some suitable types are already established, and we should be glad to carefully examine and report on any samples sent to us.

14. After careful consideration of the whole question the Committee authorised me to make the following offer to the Commission :—

- (a) If the Government decide to undertake any experimental work on the lines suggested above, the Association will do all in their power to assist either by advice or otherwise, and they will contribute the sum of 100l. per annum towards the cost of these experiments for a period of three years, dating from July 1st, 1914.
- (b) The Association will supply, free of charge, small quantities of seed for experimental purposes.
- (c) The Association will report from time to time on any samples of cotton and will advise as to their suitability for the market.
- (d) The Association will superintend the sale of any cotton or seed shipped to this country and will undertake to obtain the best possible price for such shipments.
- (e) The Association will keep separate accounts for each shipper and will superintend the remittance of the proceeds of each lot of cotton or seed, and will pay the same to the account of the producer either in this country or in Australia.
- (f) The Association will pay the ocean freight and will superintend the insurance of the cotton, and will, when required, arrange for it to be covered against all risks from the time it is weighed in from the fields up to the warehouse in Liverpool.
- (g) The Association will, when required, make arrangements for financing cotton or seed by accepting bills drawn on shipment.
- (h) The Association are prepared to supply ginning and other machinery, baling material and other stores, on easy terms of repayment, and will give the buyer the full advantage of all cash and trade discounts.
- (i) The Association will charge for the above services the following commission in addition to interest and other out-of-pocket charges :—

Cotton - 1 per cent. including the broker's charges of  $\frac{1}{2}$  per cent.  
 Seed -  $1\frac{1}{2}$  per cent. including the broker's charges of 1 per cent.  
 Buildings, machinery, baling materials, &c. 2 per cent.

No additional charge will be made for acceptance of bills, payment of freights, insurance premiums, &c.

- (j) For a period of three years, dating from July 1st 1914, the Association will guarantee a minimum price in Liverpool or London of  $6\frac{1}{2}d.$  per pound (less insurance, port, and other charges, which amount to about  $\frac{1}{2}d.$  per pound) for all cotton forwarded to them for sale, and which shall have been produced from an annual variety grown from seed issued by the Government, and which shall be shipped in a clean and merchantable condition. Any surplus which may be obtained over the above-mentioned price of  $6\frac{1}{2}d.$  per pound will be remitted to the planter. It is stipulated that this offer does not apply to any cotton grown from perennial varieties or from ratooned cotton.

In conclusion, I can only hope that this offer may be the means of establishing cotton-growing in Australia on a permanent basis.

I am, &c.

J. ARTHUR HUTTON,  
*Chairman.*

The Secretary,  
 Dominions Royal Commission.

Enclosure 1.

The British Cotton Growing Association,  
 Manchester,

DEAR SIR, January 19th, 1905.

We beg to acknowledge receipt of your letter of November 22nd.

The whole question of the future action in Australia came up before the Committee on Tuesday last, and they have practically decided to undertake no work in Australia except through the various Governments. In their opinion the pioneering work should be undertaken by the local authorities, and if they are prepared to take the matter up seriously, and can put a definite scheme before this Association, the Council would, I think, be willing to co-operate and to assist by, say, the supplying of seed and machinery, or in other ways. If the pioneering work proves successful, and establishes the fact that cotton can be economically produced in Australia, then arrangements can be made for further developments on commercial lines.

I may, however, tell you, to prevent any disappointment or misunderstanding, that the Council have very little hope of cotton being economically produced in large quantities in Australia generally, and are not prepared to sink any large amount of money in experiments in that part of the world. In our opinion, should we have low prices of cotton as we have at the moment, and which will recur again from time to time, it is almost impossible for Australia with her dear labour to produce cotton to sell at a profit, or to compete with those countries where there are large supplies of cheap coloured labour. Unless cotton proves a profitable crop for the farmer, it is no use wasting time and money in trying to extend its cultivation in Australia.

Yours, &c.,

J. A. HUTTON,  
*Vice-Chairman.*

J. BOTTOMLEY, Esq.,  
 c/o Department of Agriculture,  
 Brisbane, Queensland, Australia.

Enclosure 2.

EXTRACT from Mr. HUTTON'S LETTER to  
 Mr. BOTTOMLEY, dated 24th March, 1905.

(In acknowledging his letters of January 20th, 26th, and 27th.)

"I have already written you that in view of the difficulties of labour, &c., this Association does not feel inclined to undertake on its own account any work in Australia, but at the same time if any of the Governments are prepared to initiate a series of experimental work with a view to the ultimate establishment of cotton-growing, this Association would be very glad to co-operate as far as possible, and, if necessary, to contribute something towards the expenses of the same."

Enclosure 3.

EXTRACT from Mr. HUTTON'S LETTER of  
 April 27th, 1905, to Mr. JOHN BOTTOMLEY.

(Acknowledging Mr. Bottomley's letter of March 11th.)

"As regards the pioneering work, I think I have not made myself perfectly clear. If the Government is prepared to assist and co-operate with them and not to wait until it is demonstrated that cotton can be grown to commercial advantage. To put it in other words, if any of the Australian Governments will take this matter up seriously we shall be prepared to supply seed and ginning machinery, and possibly some small money grants. What we want to ascertain is whether cotton can or cannot be grown at a profit, and we feel that it is only right that the expense of this experimental work should be shared between the Government and this Association. When it has been sufficiently demonstrated that there is a reasonable chance of profit for the cultivator, then of course we shall have to consider the best means of placing the whole of the industry on a commercial basis."

Enclosure 4.

EXTRACT from LETTER from Mr. HUTTON to  
 Mr. BOTTOMLEY, dated May 16th, 1905.

(Acknowledging Mr. Bottomley's letter of 24th March.)

"You refer in your letter to our decision to undertake no work in Australia except through the various Governments, but of course if you are able to submit any proposals which you think might be useful, they will have the careful consideration of the Committee. At the same time, these proposals would have very much more weight if they were backed up by the Government authorities.

"As regards the question of the employment of coloured labour in Australia, the Committee do not see their way to make any protest against the present policy of the Australian Governments. We feel that it might be looked upon as an unjustifiable interference in a political question."

Enclosure 5.

EXTRACT from Mr. HUTTON'S LETTER of  
 December 10th, 1906.

(Acknowledging letter from the Agent-General for  
 Queensland of December 8th.)

"I hardly think it probable that Lancashire will be inclined to invest money in growing cotton in Queensland as owing to the importation of coloured labour being prohibited it is improbable that that country will ever be able to produce cotton on a large scale at a sufficiently low cost to enable it to compete with West and East Africa.

"... and I can assure you that if this Association can assist cotton-growing in Queensland in any way, their services are at the disposal of the Government."

## Enclosure 6.

Department of Agriculture and Stock,  
Brisbane.

SIR, 28th January 1907.

I HAVE the honour to acknowledge the receipt of your letter of the 21st ultimo, covering a copy of a letter from the British Cotton Growing Association on the subject of cotton-growing in Queensland, and, in reply, to inform you that the Association's letter has entirely confirmed the impression formed by this Department of the intentions of the Association to direct their energies to countries where black or cheap labour is available, owing to a belief that cotton cannot be profitably cultivated by white or European labour. In this connection it is desired that you will have the goodness to take every step possible to dispel that illusion, for illusion it is. No one argues that maize cannot be cultivated by white labour for the reason that maize has been so cultivated since Australia was settled. Cotton is no more irksome than maize and the returns are much better, present experience showing that upon a thousand lb. crop to the acre the nett profit exceeds that of maize by about 2l. 8s. The average given, moreover, is a small one when judged by last season when the return reached 2,300 lbs. to the acre in instances. The area under cotton is gradually increasing, and as there is a profitable market in Australia for all that can be grown for some time to come, the assistance of the British Cotton Growing Association will not be invoked for the purpose of finding a market, but it is not well that the idea that cotton cannot be profitably cultivated, excepting by coloured labour, should remain undisputed.

I have, &c.,

The Acting Secretary,  
Queensland Government Offices. *Under Secretary.*

## Enclosure 7.

The British Cotton Growing Association,  
Manchester.

SIR, March 14th, 1907.

I AM much obliged for your letter of March 12th, with a copy of the letter received from the Department of Agriculture.

I am very glad to hear that cotton can be profitably cultivated by white or European labour, and I am also glad to hear that our assistance is not required in any way, though it is needless to say that if we can help at any time, in any way, we shall be only too glad to do so.

I may mention that we have offered our services to the Government of Queensland several times, and as we have never had any encouragement to proceed further in the matter, we were forced to the conclusion that our assistance was not required, and it was for that reason we have devoted our principal energies to those countries where black or cheap labour is available, and not because of the belief that cotton could not be profitably cultivated by white or European labour. We have been always willing at all times to carry out experiments in various parts of the world, even though we thought that they might be failures. Our desire has been to "prove" countries with the object of extension later on.

I am, &c.,

The Agent-General for J. ARTHUR HUTTON,  
Queensland, *Chairman.*  
London.

## 2.

The British Cotton Growing Association,  
15, Cross Street, Manchester.

DEAR SIR, 14th November, 1913.

WITH reference to our conversation yesterday, I should be much obliged if you would explain to the members of the Commission that I am sorry that I should have in any way caused a misunderstanding as to our guarantee of a minimum price. We are always accustomed to think in Liverpool terms, and I should have remembered that the members of the Commission

would not realise that a price of 6½d. per lb. in Liverpool does not mean 6½d. net. We are, however, anxious to do all we can to help in the matter, and should very much regret if this misunderstanding should cause an unnecessary amount of trouble.

I explained the matter to the members of the Executive Committee, and I am glad to say they fully approve of the proposal I made yesterday to alter our offer to 6½d. per lb. net. They suggest that the offer should be confined to Liverpool, as there is no object in sending cotton to London, as it only causes additional expense in transporting it to Liverpool, where it is sold.

I therefore propose that Clause 14j of my letter of October 25th should read as follows:—

"For a period of three years, dated from July 1st, 1914, the Association will guarantee a minimum nett price in Liverpool of 6½d. per lb. for all cotton forwarded to them for sale, and which shall have been produced from an annual variety grown from seed issued by the Government, and which shall be shipped in a clean and merchantable condition. Any surplus which may be obtained over the above mentioned price of 6½d. per lb. after deduction of insurance, brokerage, port and harbour dues, interest, and other out-of-pocket charges, will be remitted to the planter. It is stipulated that this offer does not apply to any cotton grown from perennial varieties or from ratooned cotton."

Hoping that this may prove a satisfactory solution of the difficulty.

Yours, &c.

J. ARTHUR HUTTON,  
Chairman.

The Secretary,  
Dominions Royal Commission.

## 3.

Dominions Royal Commission,  
Scotland House, Victoria Embankment,  
London, S.W.

SIR, 20th November 1913.

I AM directed by the Chairman of the Dominions Royal Commission to inform you that your letter of October 25th, and your further letter of November 14th, were considered by the members of the Commission at a meeting on Saturday, November 15th.

At this meeting, the Commission had before them a memorandum from the Director of the Imperial Institute strongly recommending acceptance of the proposals of the British Cotton Growing Association.

They were also furnished by the Official Secretary to the High Commissioner's Office, Commonwealth of Australia, and by the Agent-General for Queensland, with copies of telegrams between themselves and their respective Governments, from which it appeared:—

- (a) that the Commonwealth Government were willing to divert the contribution of 500l. originally promised; and
- (b) that the Queensland Government were ready to provide the sum of 700l.;

as contributions to the salary of a specialist to be attached to the Queensland Agricultural Department for three years in order to make experiments in cotton-growing and to give practical instruction to growers.

In view of the fact that sufficient money had been assured to pay for the services of an adviser on cotton-growing for a period of years, and in view of the proposals made in your letters under reference, which seemed to the Commission generous and satisfactory, the members felt that it only remained for them to recommend strongly to the Commonwealth and Queensland Governments that the offer of the British Cotton Growing Association should be accepted, details being left for adjustment between the Association and the Governments concerned.

This recommendation they have now made.

But they wish to thank the Executive Committee of the British Cotton Growing Association for the readiness with which the Association has met their

suggestions for co-operation between the Association and the Commonwealth and State Governments, and they desire to add that they are gratified to find that their inquiries with reference to the possibilities of cotton-growing in Australia have led so rapidly to practical action of vast potential importance.

I am, &c.,

The Chairman, E. J. HARDING.  
British Cotton Growing Association,  
Manchester.

#### 4.

DOMINIONS ROYAL COMMISSION to (1) the OFFICIAL SECRETARY, HIGH COMMISSIONER'S OFFICE, COMMONWEALTH OF AUSTRALIA and (2) the AGENT-GENERAL FOR QUEENSLAND.

Dominions Royal Commission, Scotland House,  
Victoria Embankment, London, S.W.

SIR, 20th November, 1913.

I AM directed by the Chairman of the Dominions Royal Commission to enclose, for your information, a copy of a letter from the British Cotton Growing Association, in which some modification is suggested in the proposals contained in the previous letter of October 25th (of which a copy has already been sent to you) with regard to cotton-growing in Australia.

The two letters from the British Cotton Growing Association, with a memorandum on the same subject from the Director of the Imperial Institute (of which a copy is enclosed), were considered by the Commission at a meeting on November 15th, and the members present were unanimous in thinking that the proposals of the Association were generous and satisfactory.

They were gratified to learn, from a perusal of the telegrams between yourself and the [1. Commonwealth]

[2. Queensland] Government and between [1. The Agent-General for Queensland] [2. Captain Muirhead Collins] and the [1. Queensland] [2. Commonwealth] Government, of which copies had been furnished to them, that the two Governments were prepared to contribute the remainder of the sum required to procure the services of an agriculturist with special experience in cotton-growing, to be attached to the Queensland Agricultural Department for a term of years in order to conduct a series of experiments as suggested by the British Cotton Growing Association and also to give practical instruction to growers.

The Commission felt that, as matters had advanced to this stage, it only remained for them strongly to recommend both to the Commonwealth and the Queensland Governments that the proposals of the British Cotton Growing Association should be accepted in their entirety, details being left for adjustment between the Governments and the Association.

This recommendation they now make, and they hope to learn before the close of their inquiries that the cotton industry is well on its way to successful establishment in Australia.

The members of the Commission desire also to record their appreciation of the readiness to meet their suggestions for co-operation shown by the Commonwealth and Queensland Governments and by the British Cotton Growing Association; they are pleased to find that so speedy and practical a result has followed their investigations into this most important subject.

I am, &c.,

E. J. HARDING.

- (1) The Official Secretary,  
High Commissioner's Office,  
Commonwealth of Australia.
- (2) The Agent-General for Queensland.

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**ROYAL COMMISSION ON NATURAL  
RESOURCES, TRADE, AND LEGISLA-  
TION OF CERTAIN PORTIONS OF HIS  
MAJESTY'S DOMINIONS.**

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**MINUTES OF EVIDENCE TAKEN IN LONDON IN  
NOVEMBER 1913,**

AND

**PAPERS LAID BEFORE THE COMMISSION.**

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